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ABSTRACT

The Total Communication Checklist and Assessment screening tool for multihandicapped students is presented to assist the language examiner to select areas requiring more precise testing. The checklist, which contains 196 rating entries, consists of the following four sections: (1) readiness for symbolic communication, (2) preference for speech, (3) preference for signing, and (4) preference for communication boards. Alternative procedures are included for assessment of the matching, reading, and receptive language skills of a severely motor handicapped student who cannot use a hand or finger pointing response. Many of the tasks can be used directly for visually impaired or blind students. Specific procedures are presented to subjectively screen the student's hearing and vision if needed. The following overall objectives of the checklist are outlined: to provide an indication of the students' awareness of and interaction with the total environment, to indicate the student's present communication strategies and additional assessment needs; and to allow parents and staff to contribute to the communication assessment. To determine the appropriate communication mode, approximately 40 assessment tasks are presented, including a data sheet and instructions concerning prerequisite skills, materials needed, and a task analysis of the examiner's and student's actions. Instructions for communication board system planning and interpretation are included. In addition to the checklist, a profile that allows a summary display of data from the checklist and assessment tasks is included. (SEW)

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Total Communication Checklist and Assessment

by

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TOTAL COMMUNICATION CHECKLIST AND ASSESSMENT

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TOTAL
COMMUNICATION
CHECKLIST
AND
ASSESSMENT

PART 1

TOTAL COMMUNICATION CHECKLIST AND ASSESSMENT

INTRODUCTION

Purposes of the TCCA

The Total Communication Checklist and Assessment serves three purposes:

1. To determine the student's readiness to learn a symbolic mode of expressive communication.
2. To identify what mode of expressive communication might be most appropriate for a specific multiply handicapped student.
3. To assist in the planning of the communication board system for all board candidates.

The TCCA contains assessment procedures applicable to a wide variety of multiply handicapped students. Alternate procedures are included for assessment of the matching, reading, and receptive language skills of a severely motor handicapped student who cannot use a hand or finger pointing response. Many of the tasks can be used directly for visually impaired or blind students. Specific procedures are included to subjectively screen the students' hearing and vision if needed.

The decision to concentrate on a particular mode will affect the student's daily living far into the future. Additionally, the selection of a communication mode is a critical personal decision. As such, this decision must never be made without careful study of the student's skills and consultation with the important people in the student's environment. Information and feedback should be gleaned from as many sources and people as possible. Therefore, the procedures included in the TCCA require observation and/or testing of the student's behavior in multiple environments. Perhaps most importantly, several sections of the TCCA are to be completed using information provided primarily by the child's parents or caregivers.

Mode selection is not a science. The guidelines presented in the TCCA are not a rigid set of decision rules. Each must be weighed as it applies to the individual child being assessed. Neither does the TCCA establish a permanent placement of the student in a particular communication mode. Only continued attention to the child's speech and to training data will indicate whether the decisions made were valid.

> NOTE: The TCCA is not developed on either a developmental or a prescriptive model. It will not be possible to assign a developmental age or level to the student at the completion of the assessment. Neither will it be possible to plan the content of a specific training program using consecutive items from the TCCA.

Components of the TCCA

The TCCA consists of an Instruction Manual, a Checklist, a battery of Assessment Tasks, the corresponding Communication Profile, and a Planning Sheet for developing a communication board system.

The Instruction Manual includes: a) instructions for administering and scoring the Checklist, Assessment Tasks, and Planning Sheet; and b) a description of how the results of the evaluation can be interpreted.

The Checklist is divided into four sections with each section designed to address one of four questions. These questions are: 1) Is the student ready for communication training? 2) Are the student's speech skills adequate for vocal communication? 3) If nonspeech is indicated, are the student's skills adequate for signing? 4) If nonspeech is indicated, would a board be more appropriate for this student than signing?

Each of the Assessment Tasks pertain to a specific entry on the Checklist. These Assessment Tasks provide a more indepth evaluation of the specific communication areas of interest, assessing the frequency, duration, and/or type of responses the student exhibits.

The Communication Profile allows for a summary of the Checklist answers for each of the major assessment areas.

The Planning Sheet provides direction and further assessment tasks needed to develop a communication board system appropriate to the student's cognitive, visual, and motor skills.

Administration

Personnel. The TCCA may be administered by either professional or paraprofessional staff in a variety of fields. It is best administered by someone who knows the student well and has the time to spend on the assessment. Most of the third and fourth sections of the assessment deal specifically with the motor skills that the student exhibits. An occupational therapist or physical therapist may be able to offer help in administering these tasks.

Because the TCCA is primarily concerned with the language of the student, obviously the student's hearing acuity is an important variable. If the student has not been tested by an audiologist, it is suggested he (she) receive a test at the same time the TCCA is being administered. Likewise, if the student has not had a recent vision test, this should also be done.

The interpretation of the TCCA should be supported whenever possible by the team efforts of the parents, teacher, speech pathologist, occupational therapist, physical therapist, and physician.

Parental Involvement. The TCCA must always be completed with parental and/or primary caregiver input. The parent's preference must carry much of the weight for the mode selection decision. If the parents are not invested and supportive of the system chosen, the communication programming will fail. Parents will be more supportive and invested when given the opportunity, encouragement and information to be involved in the earliest stages possible of the decision process.

Order of Administration. Table 1, on the following page, summarizes the processes used in the TCCA to arrive at a decision of which mode is most appropriate and acceptable for the student. Then, Figure 1 indicates the steps to be followed to complete these processes.

It is strongly recommended that three major decisions of the TCCA be made only following team discussions. These three decisions are whether the student is ready for symbolic training (Section I), whether speech is an appropriate mode (Section II), and finally, which of the nonspeech modes would be most appropriate for the nonspeaking student (Sections III and IV). If it is possible for the team to meet on a regular basis, assessment time can be cut considerably for some students. For example, the decision of whether the student is ready for symbolic communication training can be made very early in the TCCA strategy. If the team is able to meet to discuss that decision, and decides the student is not ready, it will not be necessary to go any further into the TCCA. Likewise, if the team decides that speech is appropriate after Section II is completed, further TCCA testing will not be needed. However, if the team is only able to meet once, the entire TCCA should probably be completed before the team attempts a decision. The final task in the TCCA (i.e., system planning for a communication board) need not be completed at a meeting of the team but should incorporate the feedback from them.

Background of the TCCA

As more severely multiply handicapped students were referred for communication evaluations and/or training, it became obvious that there were few published tests directed at that population. Most available tests either required some type of vocal response or began rating behaviors too complex for our students. None of the tests specifically assessed the students' nonspeech language skills. As a result, clinical decisions of whether the student should use nonspeech, and often, where that training should begin were made rather arbitrarily.

The Total Communication Checklist and Assessment (TCCA) presented in this manual was developed because of this need for a comprehensive diagnostic tool for the evaluation of communication skills with severely and profoundly multiply handicapped students.

Currently, the TCCA has been administered to 50 multiply handicapped residents at Kansas Neurological Institute, Topeka, Kansas. Portions on the TCCA have been administered to 40 clients services through the Division of Mental Retardation-Developmental Disabilities Services in the state of Arkansas. All 90 individuals were diagnosed as moderately to profoundly retarded. Their chronological ages ranged from three years to 35 years. Feedback from these examiners and students has been incorporated into this edition of the TCCA.

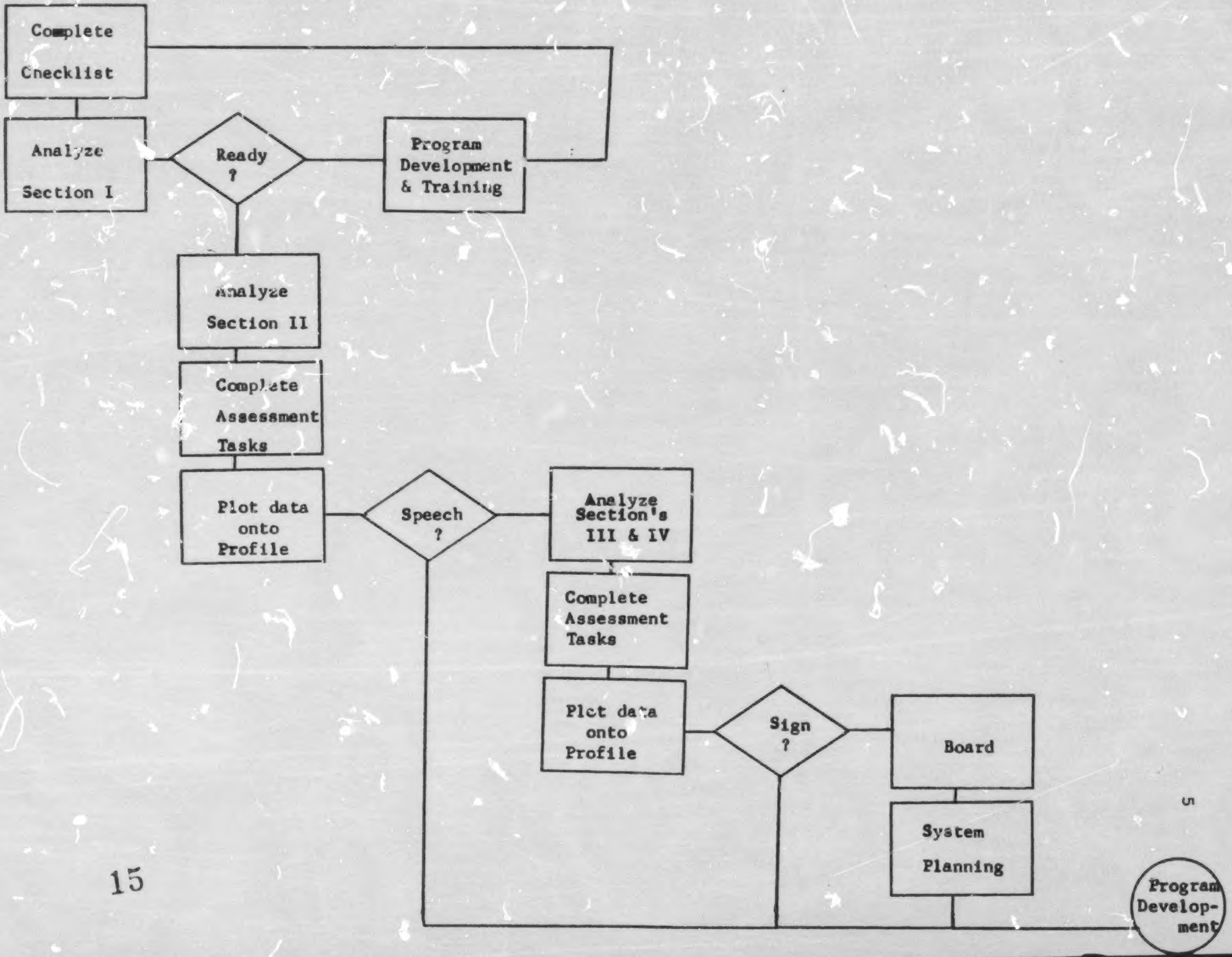
TABLE 1

TCCA ASSESSMENT STRATEGY

MODE SELECTION

Task	TCCA Component Used	Purpose
Interview parents and/or other significant persons.	Checklist	Identify current skills, explain mode alternatives; determine parental preferences.
Review educational and training records.	Checklist	Determine past training successes and failures. Identify previous training in any mode.
Observe child in spontaneous functional communication setting.	Checklist Assessment Tasks	Identify child's current communication strategies; determine spontaneous vocal and motor skills.
Directly test selected skills.	Assessment Tasks	Clarify discrepencies between observed and/or reported skills; probe skills which did not occur during observations or which require further definition.
Conduct diagnostic training over a short period of time. (OPTIONAL TASK)	Assessment Tasks	Clarify any remaining questions of skill; resolve any differences of opinion among team members about skill levels.
Conduct a group meeting(s) with parents and involved professional staff.	Profile	Summarize and interpret assessment data; obtain group concensus to select most preferred, appropriate mode.

Figure 1: Steps for completing the TCCA



OVERVIEW OF CHECKLIST

Purposes of Checklist

The Checklist is a general screening tool that provides the language examiner with observational data to be used in the selection of areas requiring more precise testing or measuring. There are a total of 196 entries to be rated on the Checklist. The purposes of the Checklist are:

1. To provide a general indication of the multihandicapped student's awareness of and interaction with the total environment.

2. To generally indicate the student's present communication strategies.

3. To provide basic information for selection of additional assessment needs.

4. To allow parents, teachers, or other direct-care staff a chance to provide initial input into the complete communication assessment.

Organization of the Checklist

The Checklist has four sections. Each section addresses a decision in the mode selection process. The sections are titled:

Section I: Readiness for Symbolic Communication

Section II: Preference for Speech

Section III: Preference for Signing

Section IV: Preference for Communication Board

There are ten questions in each section. Below each of these questions is a list of entries which must be rated. Figure 2, (see next page) shows part of Section I of the Checklist.

A number code is used in the TCCA in order to provide some continuity between the Checklist, Assessment Tasks, and Profile. Every entry on the Checklist is assigned a number. The Assessment Task and Profile row corresponding to that Checklist entry are given identical numbers. Each number has three digits. The first digit indicates the Checklist section. The second digit indicates the question within each section. The final digit indicates the individual entry under the question. The sections are numbered one (1) through four (4), the questions are zero (.0) through nine (.9), and the entries one (.01) through five (.05). For example, 1.24 is the fourth entry in the third question of Section I (See Figure 2 again).

Figure 2

TOTAL COMMUNICATION CHECKLIST

Name____________________________ Completed by____________________________

Date____________________________

SECTION I: READINESS FOR SYMBOLIC COMMUNICATION

Primary Considerations		YES	MARGINAL	NO	NEED FURTHER INFORMATION
Does the student indicate wants and needs in any way?					
1.01	Has facial expression or laughter to indicate pleasure.				
1.02	Has facial expression to indicate discomfort or anger.				
1.03	Can indicate in some way that they want more of a preferred activity, food, etc.				
1.04	Looks at or gestures to obtain a preferred object, activity, etc.				
1.05	Points to pictures, uses manual signs, or says words to express wants and needs.				
Does the student respond to reinforcement?					
1.11	Refuses some activities or foods.				
1.12	Shows preferences for certain foods.				
1.13	Shows preferences for certain toys, recreation items, or activities.				
1.14	Shows preferences for certain people.				
1.15	Positive reinforcement procedures have been effective recently in a learning situation.				
Does the student exhibit behaviors which would interfere with learning activities?					
1.21	Is frequently ill.				
1.22	Seizures.				
1.23	Tantrums.				
1.24	Displays self-stimulatory behaviors.				
1.25	Displays self-abusive behaviors.				
Does the student exhibit adequate attending skills to warrant structured training?					
1.31	Establishes eye contact with objects and people.				
1.32	Follows moving objects with eyes.				
1.33	Transfers eye gaze from one object to another.				
1.34	Follows simple instructions like "look" or "wait".				
1.35	If not confined to a wheelchair, remains seated in a chair for 2 minutes at a time during a structured activity.				
Does the student exhibit cognitive skills prerequisite to language?					
1.41	Looks for objects not in sight.				
1.42	Uses objects correctly (such as playing with toys, brushes hair, etc.)				
1.43	Retrieves or looks for a dropped object.				
1.44	Matches simple objects				
1.45	Shows an understanding of turn-taking as evidenced by attempting to imitate motor models.				

Scoring the Checklist

An entry on the Checklist is rated by making an "X" in one of the four columns to the right of the entry. For instance, when rating the entry number 1.21. "Refuses some activities or food", the rater may mark in a column for "YES", "MARGINAL", "NO", or "NEED FURTHER INFORMATION". A "YES" rating indicates the rater feels the student consistently refuses certain food or activities. A "NO" rating would indicate the student rarely or never has been observed refusing anything. If the student's reaction to these stimuli is variable, an "X" would be marked in the "MARGINAL" column. "NEED FURTHER INFORMATION", the final column, can be marked for several reasons. If the rater does not have and cannot find the information to rate a particular entry (such as "Currently performs some task of daily living which he/she was unable to do a year ago."), an "X" should be placed in the final category. If the student has never been observed in a situation where the behavior was likely to occur (such as "Matches simple objects."), the final column may need to be marked. Finally, if there is some discrepency between raters' judgements of the entry, this final column may also be marked.

Administration of the Checklist

The Checklist should be completed by a person familiar with the student with feedback from the parents or primary caregiver. An interview method, as opposed to sending a blank Checklist home to be independently completed and returned, is recommended to obtain parent input. The rater and parent may not know if the student does all of the behaviors noted on the Checklist even if they are familiar with the child. The rater may then do one of two things -- the rater may wait and test the behavior later, or may quickly probe to check the student's response. For instance, if the raters do not know if the student "Follows moving objects with eyes", a toy or food could be held up and moved in front of the student's face in order to observe the response.

Once the Checklist entries have been rated the first time through with the assistance of the parent, the entire Checklist should be given a quick review. At this time, note any entries marked "NEED FURTHER INFORMATION". Obtain the information needed to mark the entry. For some entries this may involve administering an Assessment Task or observing the student in a particular situation. For other entries it may involve looking at the student's training, school, or medical records. Once the Assessment Tasks, observations, and record searches are completed, return to the Checklist and mark the entries according to this new information.

OVERVIEW OF ASSESSMENT TASKS

Purpose of the Assessment Tasks

The Assessment Tasks allow for an indepth formal measure of particular behaviors. They allow the examiner to objectively measure the student's responses. Depending on which tasks are administered, the frequency, duration or type of responses may be measured. Most Assessment Tasks are designed in a structured stimulus-response paradigm so that each recorded response is observable and a number-score may be obtained upon completion of the Task. Other Assessment Tasks require the examiner to record observation data for the frequency of occurrence and the type of response occurring (vocalizing, use of fine motor movements in play activity, etc.). These unstructured tasks are also scored and assigned a number score. The scores from both types of tasks are then assigned a "YES", "MARGINAL", or "NO" weight and marked accordingly on the corresponding checklist entry.

The number at the top of the Task corresponds to the entry from the Checklist. Only those Checklist entries marked by an asterik have an Assessment Task. [1]

Each Assessment Task consists of a set of instructions and a data sheet. As often as possible, common data sheets are provided. Many Assessment Tasks require materials. Each Assessment Task's instruction sheet(s) lists specific prerequisite skills for that particular task, materials needed, and a task analysis of what both the examiner and the student must do during the testing. The instructions give specific information on how to record the student's responses in a way that will facilitate program planning once the entire assessment is completed. That is, correct responses are defined for each task and, where applicable, partially correct, incorrect, and no responses are also defined. Instructions are also given on how to score the completed Assessment Tasks in a consistent fashion.

General Instructions for Assessment Tasks

Specific instructions for each Assessment Task are included in Part 2 of this manual. These instructions address the following issues.

Prerequisites. All of the structured Assessment Tasks require the student be able to use good attending behavior during the testing. This means he/she should sit quietly, look at the testing material and/or examiner when asked, and refrain from any self-stimulatory behavior during the actual trials. If the student does not exhibit adequate attending for formal testing, testing may be attempted in a less structured fashion.

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[1] In an attempt to cut the length of the TCCA, there are no Assessment Tasks for Section I or for most of the Secondary Considerations in any of the Sections. If necessary the examiner is encouraged to test these skills using self-designed probes.

All of the receptive language tasks (2.4 and 4.0) require that the student be able to signal response choices to the examiner in some amnner (looking, pointing, etc.). Before administering these tasks, a reliable response should be selected and/or taught.

Several of the Assessment Tasks require that the student already have or be provided with a way to answer questions. If it is obvious the student has no means to let you know what he/she is trying to communicate, those tasks may be omitted. It is often possible, however, to provide the student with a temporary, very simple, communication board which will allow expression of the behaviors being tested.

Trial Presentation. Each Assessment Task should be administered with the student sitting or laying as comfortably as possible, within easy reach or sight of all materials used in the task. Before each trial, establish attending. Always allow the student adequate time to respond independently before providing added help!

Each task usually consists of ten trials. However, if time permits, the trials may be repeated for a total of 20 trials. This allows for a stronger probe of the student's abilities.

Reinforcement. Reinforce all correct responses during the trials of the structured Assessment Tasks. This reinforcement should consist of the trainer praising the student happily and showing general affection to him/her, but may include other reinforcing stimuli. Reinforce prompted responses if the responses are improvements over previous attempts or if motivation is low. Make no comment following incorrect or no responses. Reinforcement is used during this testing to insure optimal motivation and responding.

Scoring. After the student has been given an opportunity to respond to all ten trials of the Assessment Task being administered, count the number of each type of response and write this number in the SESSION SUMMARY area if the scoring sheet. The SESSION SUMMARY area will yield a "YES", "MARGINAL", or "NO" score which should then be entered on the corresponding Checklist number.

Some Assessment Tasks require scoring procedures slightly different from those described above. These exceptions are provided with the instructions for that task.

Examiner Flexibility. The TCCA allows the examiner to be quite flexible. The examiner may choose the materials to be used in testing; the specific questions or instruction to use when testing; the schedule and type of reinforcements; which Assessment Tasks to administer; how to pace the session to insure maximum motivation and responding to the tasks; and how exactly to score each response. If the examiner sees a need, additional assessment activities may be developed. The examiner may also choose the signing system and board system(s) (display, symbols, response mode) to be used during the assessment. If time is not available to administer the complete TCCA, general decisions can be cautiously based on only the Checklist information.

OVERVIEW OF PROFILE

Purposes and Content of the Profiles

The Profile allows for a summary display of the data from the Checklist and indirectly from the Assessment Tasks. Although the individual entries on the Profile can not be compared directly to one another, the completed profiles provide a means for the examiner to visually scan the student's overall strengths and weaknesses in their development of a communication system. The Profile also provides a way to compare the student's competencies across the three modes -- speech, signing, and board communication. Finally, the coversheet of the Profile provides space to record the major decisions of the TCCA.

Completion of the Profile

Complete all identifying information on the first page of the Profile.

Record all Assessment Task scores onto their Checklist entry.

Complete any entries of the Checklist which are still marked "Need Further Information".

Count the number of "YES", "MARGINALS", and "NO" entries for each question on the Checklist. Refer to the coversheet of the Profile to determine which Profile area to mark for that question. Checklist

Example:

Does the student exhibit behaviors which would interfere with learning activities?	YES	MARGINAL	NO
1.01 Is frequently ill.			X
1.02 Seizures.			X
1.03 Tantrums.			X
1.04 Displays self-stimulatory behavior.		X	
1.05 Displays self-abusive behaviors.			X

The entries on this question resulted in zero "YES", one "MARGINAL". and four "NO" scores. According to the second line of the final column on the coversheet of the Profile, this set of entries results in a "NO" answer to that question.

Profile Example:

	YES	MARGINAL	NO
1.0 Does the student exhibit behaviors which would interfere with learning activities?			X

INTERPRETATION GUIDELINES FOR MODE SELECTION

The interpretation of the TCCA is based on the following assumptions:[1]

Many handicapped students do not possess the primary "communication" skills necessary to warrant teaching them symbolic speech, signing, or board use.

Although speech is the most normal of all communication modes, many severely multiply handicapped students are not able to use understandable speech.

Signing is often not a functional communication mode for a nonspeech candidate either because the motor skills required are too refined, or because the environment neither uses or understands the signs.

A communication board is frequently the most preferred initial mode for severely and profoundly delayed students, not only because it requires a simple motor response but because it allows a very concrete system of representation, i.e., pictures.

As stated earlier in this manual, any decisions based on the TCCA should be made with team and especially parental input. It may be helpful to provide copies of this INTERPRETATION section to the team before the decision is made to help inform and orient the members.

If no team concensus can be reached it may be necessary to conduct some diagnostic training over a short period of time in one or more modes to support the assessment findings.

If the decision is made to use a board for the student, procede to PART 3 of the TCCA.

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[1] To date it has not been possible to conduct the longitudinal studies necessary to validate this assessment tool. Therefore, this INTERPRETATION Section of the TCCA is offered simply as guidelines, possible correlations, and suggestions on how to use the TCCA information to reach assessment and training decisions.

Section I: Readiness for Symbolic Communication

Discussion. "Communication" may be defined as the transmission of ideas and feelings from one person to another. These ideas and feelings may be communicated by using very simple behaviors such as body positions and facial expressions or very complex behaviors like writing and talking in sentences. Speech, manual signing, and communication boards (to a slightly lesser degree than speech and signing) are all complex systems of communication. Many handicapped children to not possess the prerequisite skills necessary to use or learn these complex systems.

Section I of the TCCA attempts to identify some of the skills which are most important to complex communication development.

Decision Rules. The following guidelines are presented to assist in interpreting the Section I information.

A student is "ready" for symbolic training if all five primary considerations were answered with either all YES, or some combination of YES and MARGINAL entries. [1]

A "NO" answer to either 1.0 or 1.1 automatically excludes the student from symbolic training. If a student does not currently communicate wants and needs in any way, symbolic training regardless of the mode, should be delayed in preference to training some less complex communicative behavior. Likewise, communication training in any form will likely be ineffective if reinforcing stimuli have not been identified or developed for a student.

A "NO" answer to 1.2 may carry enough weight to independently determine that a student is not ready for symbolic training. If a student displays frequent tantrums or self-abusive behaviors, priority training may need to centeron extinguishing these inappropriate behaviors before any other training is attempted.

If the five Primary Considerations do not clearly indicate that the student is ready (i.e., all are MARGINAL or a combination of YES, MARGINAL, and NO), review of the five Secondary Considerations may help clarify the decision. If most of the Secondary Considerations are YES, the student may be "ready". However, if the majority of these latter questions are NO or MARGINAL, the decision would be weighted toward the student not being "ready".

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[1] During all of this INTERPRETATION Section, mention of the "YES", "MARGINAL", and "NO" ratings refer to those listed as summary on the Profile. They do not refer to the individual entries on the Checklist.

Section II: Preference for Speech

Discussion: Obviously, speech is the most normal of the three modes under consideration. Nearly all persons in the environment use and understand speech. The system is always available and has an open set of vocabulary symbols from which to draw content. Although generalization and maintenance of any mode does not come easily, in theory, speech should be easier to generalize to new environments and to maintain over time because of its widespread use. However, speech is frequently not the best mode for severely handicapped vocally limited students.

There are two disadvantages of selecting speech for this population. First, speech is resistant to prompting and shaping procedures. It is possible to prompt and shape speech using vocal imitation. However, experience has shown that this process may take years! Many students have gone through years of speech training and it is still difficult for persons unfamiliar with them to understand them. It is strongly suggested that speech be selected as the primary symbolic communication mode only for students who already exhibit good imitation of simple spoken words.

The second disadvantage of speech, that is the abstractness of its symbol system, is a concern for students who have poor discrimination and memory for auditory stimuli.

Section II data may be used to determine that the student should use either speech as a primary mode, nonspeech as a primary mode, or speech with some nonspeech support. Rarely should the decision be made to exclusively ignore the student's speech, however. Even if the speech is not refined enough to be used as the primary communication mode, vocalizations can frequently be used to call attention to the nonspeech responses, or to add to the intelligibility of "approximated" signs.

Decision Rules: Based on the above assumptions, the following guidelines are offered for interpreting the Section II information.

The student is a likely speech candidate if most of the Section II questions were answered with either YES or some combination of YES and MARGINAL.

The student is not a good candidate for speech if 2.1 (Imitation) was answered NO, regardless of how the other questions were answered. Students who are able to imitate sounds but not words may be speech candidates, but their training may be slow and their best responses frequently will only be approximations of the whole word (for example: "muh" for "milk", or "kukuh" for "cookie").

Students are generally strong candidates for nonspeech training if 2.2 indicates a large discrepancy between receptive and expressive speech skills (i.e., if receptive skills are much better than expressive skills resulting in a NO). Some students rated NO in that category do exhibit some speech skills. However, their speech development has not kept pace with their comprehension. These students would likely benefit from some combination of speech plus nonspeech training.

As with Section I, if the five Primary Considerations in Section II do not clearly indicate that speech is preferred, review the five Secondary Considerations. If most of these are YES, speech may be the best mode for the student.

Section III: Preference for Signing

Discussion: Once the decision has been made that speech is not appropriate as the primary symbolic mode for a student, the relative advantages of signing versus a communication board must be consisered. The advantages of signing are its unrestricted availability and vocabulary. A student using manual signs will generally be able to produce any messages at any time he/she chooses. However, unless the listener not only knows the signs but knows the same sign system that the student is using, no communication will occur. Most of the persons important to the student (peers, parents, teachers, etc.) must learn signs if this system is to function communicatively. Unfortunately, this is no small task. Additionally, the signing student will be unable to communicate with most people outside of school and home because the general public does not know signing. This "closed audience" feature of signing alone will make this mode nonfunctional for many students.

Decision Rules: The following guidelines are offered for interpreting the Section III data.

The student is a likely signing candidate if most of the five Primary Considerations were answered YES and MARGINAL.

Either 3.0 (Imitation) or 3.2 (Manipulation) must be answered YES if the student is to be considered a signing candidate. Obviously, imitation is a beneficial skill. Imitative models can be very effective prompts during training, and are generally fairly simple to fade. However, unlike speech, signed responses do not require imitation for prompting. Physical prompts (i.e., total "put-throughs") can be used to teach the sign configurations also. In order for "put-throughs" to be effective, the student must allow other people to physically manipulate his/her hands and arms. If the student is not imitative and will not allow the trainer to manipulate his/her hands, it will be very difficult to teach signs.

A student is automatically excluded from signing if 3.1 (Uses both hands) was answered NO. Functional signing vocabularies include many two handed signs regardless of what system is used. Experience has shown that students with limited or no use of one hand are frequently unintelligible signers unless the "listener" is familiar with the adaptions used. Signing is restrictive enough in terms of "audience". If the audience is further limited by the student's use of an idiosyncratic one-handed system, communication will likely be unintelligible in most situations.

If 3.4 (Environmental support) is answered NO, two options are available to the team. Lack of support can either exclude the student entirely from signing or indicate to the team that some environmental changes need to occur to establish more support for the system.

As with the earlier Sections, the Secondary Considerations may be used to clarify any ambiguous decisions. However if signing is not clearly the preferred mode for the student, the mode decision should be delayed until Section IV data can be compared to Section III data.

Section IV: Preference for Communication Board

Discussion: If the student is a nonspeech candidate and signing is not clearly the preferred mode, a communication board should be developed. If after completing Section III there remains some question about the preference for signing versus a board, the results of Sections III and IV should be compared.

Communication boards are not the answer to all the mode selection difficulties. This system can severely limit the student's ability to communicate for several reasons. First, boards are often left in closets, have dead batteries, or otherwise are not accessible to the student. Next, the amount of information which may be conveyed depends on the number of symbols on the board and the board's size. Finally, many listeners avoid interacting with board users because they do not understand what a board is, or they do not want to transcribe a coded message, or finally because the whole process is too slow.

The student is not to blame for the lack of availability, nor for listener avoidance. When a board has been determined to be the most immediately useable symbolic system, it becomes the responsibility of the adults in the environment to make the board accessible and to take the time to use it. When the environment supports and facilitates the use of the communication board, this mode can, by far, be the most functional of the three modes discussed. Boards have the distinct advantage over signs of being intelligible to anyone who comprehends pictures or printed words. The systems used for the board's symbols can be made much less abstract than either speech or signs. This should translate into less training time. Finally, students need to only learn one motor response to use a board. If this one motor response is under stimulus control, a board system can be developed.

Decision Rules: The guidelines for interpreting the Section IV information differ slightly from those given in the previous sections. Most of Section IV addresses non-skills. That is, many students are board candidates simply because thay are unable to use the skills necessary to sign or speak. However, all board candidates are not "left-overs" or "drop-outs" from the other modes. The discussion below should clarify when a board would be most appropriate before signing or even speech for some students.

The student is a good candidate for a board if most of Section IV Primary Considerations were answered with YES and MARGINAL.

With other variables being equal, a board is preferred over signing if 4.2 (Motorically/communicatively passive) and/or 4.3 (Low cognitive skills are answered YES or MARGINAL. This Decision Rule is offered to help place those students who would most likely require the simple, less abstract symbol system and/or motor responses with boards.

As with earlier Sections, Secondary Considerations may be used to further define any questionable decision.

PART 2: ASSESSMENT TASKS FOR MODEL SELECTION

EXPRESSION OF WANTS AND NEEDS*

Materials: variable, depending on the activity selected.

Procedures:

The purpose of this Assessment Task is to identify how the student expresses a basic want or need spontaneously. Therefore, this Task is not administered in a structured, isolated setting. Instead, the examiner attempts to arrange a class activity in such a way that the student must communicate that he/she wants or needs something.

1. Identify at least one situation to be observed which creates or involves a communicative need. This may involve a situation where access to certain desired items or activities are provided to the other students, but not to the student being tested. Or, items may be removed which require the student to participate in a certain activity.

2. Set up the situation identified above, then wait to see how the student responds.

3. If the student has not requested the desired activity or object within one or two minutes, the examiner may ask the student, "What do you want?".

4. Record and describe the student's response.

5. Observe the student for a total of 5 occasions: either repeated identical situations, or several different situations.

Recording:

+ : Correct. Student used an intelligible spoken word or words to express the want or need either spontaneously or after being asked "What do you want?".

- : Incorrect. Student used an unintelligible word or vocalization, or said something other than a request for the necessary item.

0 : No response. Student said nothing, even after being asked.

Examples:

The following two examples are provided to help clarify what type of situations may be used during the Assessment Task.

Example #1. Sandy's favorite food was chocolate ice cream. As part of a special snack in the classroom, all the children were given chocolate ice cream. The teacher without commenting, "forgets" to give Sandy her ice cream. She then sits down to feed another child, waiting for Sandy to recognize the communicative need and initiate an interaction.

Example #2. Kenny enjoys coloring as a free time activity. He is seated at a table and paper is placed in front of him, but the crayons are left on the shelf. The teacher says "You can color now Kenny" and walks to the other side of the room. She waits (without looking at him) for Kenny to recognize the need to initiate a request for the crayons in order to participate in the activity of coloring.

* For further information on identifying and/or designing communicative situations refer to Klein, M.D., Wulz, S.V., Hall, M.K., Waldo, L.J., Carpenter, S.A., Lathan, D.A., Myers, S.P., Fox, T., and Marshall, A.M. Comprehensive Communication Curriculum Guide. Lawrence, Kansas: Early Childhood Institute Working Paper, 1981 (Environmental Manipulations, pages 79-84).

ASSESMENT TASK

2.01 Expressing Wants and Needs with Spoken Words

Student ______________________ Examiner ______________________

	Situation	Date/Time	Response Description	Score
1.				
2.				
3.				
4.				
5.				

Session Summary

+	-	0

Use the ranges below to enter this score onto the checklist:

7 to 10 (+)	YES
4 to 6 (+)	MARGINAL
0 to 3 (+)	NO

SAYS SINGLE WORDS CLEARLY 2.02

Prerequisite Skills: Some expressive speech

Materials: 10 common objects

Procedures:

Select 10 objects which the student may either want or need in his/her daily living. Write one object label beside each number (one through ten) on the Scoring Form.

1. Establish attending.

2. Hold up the first item and ask "WHAT IS THIS?"

NOTE: If the student is visually handicapped, allow him(her) to feel the object before asking the question.

3. Allow the student time to respond, reinforcing all correct labels.

4. Record the score for the response, and continue with the next object.

Recording:

+ : Correct. Student named the object clearly enough a listener could understand the name without seeing the object being shown.

S : Approximated. Student named the object, but not clearly; that is some sounds were omitted and/or substituted.

- : Incorrect. Student named a different object, or echoed the question.

0 : No response. Student remained quiet for more than 10".

ASSESSMENT TASK

2.02 Says Single Words Clearly

Student ______________________ Examiner ______________________

Date

	Object	Response Description	Score
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Session Summary

+	S	-	0

Use the ranges below to enter this score onto the checklist:

7 to 10 correct	YES
4 to 6 correct	MARGINAL
0 to 3 correct	NO

SPONTANEOUS INTELLIGIBLE SENTENCES 2.03

Materials: Stop watch

Procedures:

Observe the student as he/she interacts with peers or another teacher in several activities. The observer should not attempt any other activity but data recording during these sessions.

Observe for five consecutive minutes each session for four different sessions to obtain a baseline of the student's spontaneous speech. It is recommended that the sessions be held in different settings over four days (area, people, time, activity changes). Avoid observing during structured training. Choose instead meal, snack, play, free, or self-help activities.

1. Place the stop watch on the clipboard. Start the watch.
2. Observe the student for 10 seconds.
3. Immediately record the student's utterances heard in that 10" interval.
4. Listen and observe 10" more.
5. Repeat the scoring. Continue to observe and record for 5 minutes.
6. The observer does not interact with the student during the sessions either to ellicit or reinforce speech.

Recording:

At the end of each 10" interval the type(s) of spoken multi-word utterances the student should be recorded. Record each code only once per interval regardless of how many times it occurred during the 10". If the student was quiet during the entire interval or used only single words, vocalizations, or babbling, leave that square blank and move on to the next.

Because straight transcription of the student's speech is difficult and time consuming, all recording is done in code. The codes is described below:

S : Intelligible utterance. Student used an understandable utterance of two or more words at least once during the interval. The utterance does not need to be grammatically correct nor complete, simply intelligible.

S̸ : Unintelligible utterance. Student used an unintelligible multi-word utterance at least once during the interval.

ASSESSMENT TASK

2.03 Spontaneous Intelligible Sentences

Student ______________________ Observer ______________________

10" INTERVALS

Date_________ Setting_________ Time______

1															

Date_________ Setting_________ Time______

2															

Date_________ Setting_________ Time______

3															

Date_________ Setting_________ Time______

4															

Session Summary

	#	%
S		
S̸		

NOTE: See page   of the TCCA Instruction Manual for a Percent Conversion Table for these data.

Use the ranges below to enter this score onto the checklist:

70% to 100% (S) with 0% to 35% (S̸)	YES
40% to 100% (S) with 40% to 100% (S̸)	MARGINAL
0% to 35% (S) with 0% to 100% (S̸)	NO

VOWEL AND CONSONANT IMITATION (SPEECH) 2.11
2.12

Prerequisite Skills: Some spontaneous and/or elicited sounds

Procedures:

1. Establish attending.
2. The examiner says "SAY (VOCAL MODEL)", such as "Say ah", or only "(VOCAL MODEL)", as "ah".
3. Allow the student time to respond.
4. Reinforce correct responses.
5. Record the response description and score.
6. Begin the next trial.

Recording:

+ : Correct. Very close or perfect imitation.

S : Approximated. Close, but the sound was not quite clear.

- : Incorrect. Said something completely different than the model, or repeated an earlier model.

0 : No response. Remained quiet for at least 10 seconds.

ASSESSMENT TASK

2.11 Vowel Imitation
2.12 Consonant Imitation

Student ____________________ Examiner ____________________

Date ____________________

2.11 Vowels			2.12 Consonants		
Model	Response Description	Score	Model	Response Description	Score
1. "ah"/a/(lot)	________	____	1. "buh"/bʌ/(bum)	________	____
2. "a"/æ/(bat)	________	____	2. "tuh"/tʌ/(tub)	________	____
3. "eh"/ɛ/(fed)	________	____	3. "kuh"/kʌ/(cut)	________	____
4. "uh"/ʌ/(up)	________	____	4. "thuh"/θʌ/(thumb)	________	____
5. "ē"/i/(eat)	________	____	5. "suh"/sʌ/(sun)	________	____
6. "i"/I/(sit)	________	____	6. "muh"/mʌ/(mud)	________	____
7. "ā"/e/(ate)	________	____	7. "fuh"/fʌ/(fun)	________	____
8. "u"/u/(to)	________	____	8. "chuh"/tʃʌ/(chug)	________	____
9. "ō"/o/(toe)	________	____	9. "ruh"/rʌ/(run)	________	____
10. "oo"/ʊ/(put)	________	____	10. "nuh"/nʌ/(nun)	________	____

Session Summary

+	S	-	0

Session Summary

+	S	-	0

Use the ranges below to enter these Assessment Task scores onto the Checklist:

If the student responded between:	Mark this entry on the checklist.
7 to 10 correct (+)	YES
4 to 6 correct (+)	MARGINAL
0 to 3 correct (+)	NO

ONE AND TWO SYLLABLE WORD IMITATION (SPEECH)

Prerequisite skills: Some spontaneous and/or elicited sounds; some sound imitation skills.

Procedures:

1. Establish attending.
2. The examiner says "SAY (WORD)", such as "Say ball", or only "(WORD)" as "ball".
3. Allow the student time to respond.
4. Reinforce correct responses.
5. Record the response description and score.
6. Begin the next trial.

Recording:

+ : Correct. Very close or perfect imitation; that is, the student imitated the word without omitting any sounds and with minimal sound substitutions.

S : Approximated. Response contained sound omissions or substitutions which resulted in an unclear response.

- : Incorrect. Said something completely different than the model.

0 : No response. Remained quiet for more than 10 seconds.

ASSESSMENT TASK

2.13 One-syllable Word Imitation
2.14 Two-syllable Word Imitation

Student________________________ Examiner________________________

Date ________________________

2.13 One-syllable Words			2.14 Two-syllable words		
Model	Response Description	Score	Model	Response Description	Score
1. "ball"			1. "cookie"		
2. "cup"			2. "mama"		
3. "doll"			3. "hello"		
4. "shoe"			4. "pencil"		
5. "book"			5. "doing"		
6. "pop"			6. "supper"		
7. "gum"			7. "button"		
8. "no"			8. "water"		
9. "eat"			9. "bye-bye"		
10. "hat"			10. "table"		

Session Summary

+	S	-	0

Session Summary

+	S	-	0

Use the ranges below to enter these Assessment Task scores onto the Checklist:

If the student responded between:	Mark this entry on this checklist.
A total of 10 to 7 (+) or (S), with no more than half of the total being (S) scores.	YES
10 to 5 approximations (S) with no (+) scores.	MARGINAL
A total of 4 to 6 (+) or (S), with no more than half of the total being (S) scores.	MARGINAL
A total 0 to 3 (+) or (S)	NO

IMITATES SPONTANEOUS SPEECH 2.15

Prerequisite Skills: Some spontaneous, unelicited sounds

Procedures:

1. Observe the student over a period of days, recording any spontaneous vocalizations used.
2. Ask the parents to record any spontaneous sounds the child uses at home.
3. Select up to 10 different vocalizations from the two lists to present as models in this Assessment Task. The vocalizations may be sounds, syllables, or words. If less than 10 spontaneous vocalizations can be identified, the models may be presented more than once during the task.
4. Write the vocalizations under the "Model" column on the 2.15 data sheet.
5. Administer this Assessment Task just as described for 2.11/2.12 (see pages 26 and 27).

Recording:

+ : Correct. Very close or perfect imitation.

S : Approximated. Close, but the sound was not quite clear.

- : Incorrect. Said something completely different than the model, or repeated an earlier model.

0 : No response. Remained quiet for at least 10 seconds.

ASSESSMENT TASK

2.15 Imitates Spontaneous Speech

Student______________________ Examiner______________________

Date ______________________

	Model	Response Description	Score
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Session Summary

+	S	-	0

Use the ranges below to enter this Assessment Task score onto the Checklist:

If the student responded between:	Mark this entry on this checklist.
A total of 10 to 7 (+) or (S), with no more than half of the total being (S) scores.	YES
10 to 5 approximations (S) with no (+) scores.	MARGINAL
A total of 4 to 6 (+) or (S), with no more than half of the total being (S) scores.	MARGINAL
A total 0 to 3 (+) or (S).	

FOLLOWS SIMPLE DIRECTIVES COMPARED TO SAYING SINGLE WORDS 2.21

PART I: FOLLOWS SIMPLE DIRECTIVES

NOTE: Because many students may be orthopedically handicapped, two sets of instructions are listed. Only one set of instructions need to be used with any one student.

Materials: Book, comb, chair, door.

Procedures:

Most of this Assessment may be done informally during the course of a structured training session. The instructions should be given in as natural a setting as possible.

1. If the situation arises to give any of the instructions to the student, be sure he/ she is attending to the examiner, then give the instruction clearly with normal loudness and inflexion. The examiner should avoid repeating the instruction more than once.

2. Allow the student adequate time to respond. Reinforce all correct responses. Record the score for the response, then begin the next trial when convenient.

3. Depending on classroom activities, some situations may need to be intentionally "set up" in order to give the instructions.

4. If the instruction involves an object (i.e. "Comb your hair"), place the needed object (comb) in a group of unnecessary objects (ball, book). This requires the student to discriminate the object needed and the action requested.

Recording:

Any trial may be recorded as:

+ : Correct. Student very closely or perfectly followed the instruction.

P : Prompted. Student needed an added cue to complete the response (e.g. repeated instructions, physical assistance, etc.)

- : Incorrect. Student followed only part of the instruction, or did some activity other than the one told to do, or echoed the instruction, or resisted a physical prompt.

0 : No response. Student made no attempt to follow the instruction after at least 10 seconds.

PART II: SAYS SINGLE WORDS

Instructions for this part of the Assessment Task are identical to those for 2.02, Says Single Words Clearly on pages 22-23. If 2.02 has already been completed, simple transfer the Session Summary data onto the 2.21 Scoring Form.

ASSESSMENT TASK

2.21 Follows Simple Directives/Says Single Words

Student_______________________ Examiner_______________________

Date _______________________

PART I: Follows Directions

	INSTRUCTIONS FOR PHYSICALLY ABLE	INSTRUCTIONS FOR PHYSICALLY HANDICAPPED	RESPONSE DESCRIPTION	SCORE
1.	"Stand up"	"Put your head back/down"		
2.	"Open door"	"Look up"		
3.	"Give me book"	"Open your mouth"		
4.	"Put hands down"	"Swallow"		
5.	"Open the book"	"Touch my hand"		
6.	"Comb your hair"	"Smile for me"		
7.	"Sit down"	"Look at the book"		
8.	"Come here"	"Close your eyes"		
9.	"Move the chair"	"Move your hands back"		
10.	"Close the door"	"Blow through your nose"		

PART II: Says Single Words

	OBJECT	RESPONSE DESCRIPTION	SCORE
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Session Summary

PART I	+	P	-	0
PART II	+	S	-	0

Use the ranges below to score the Checklist entry:

0 to 2 (+) scores difference between PARTS I and II.	YES
3 or 4 (+) scores difference between PARTS I and II.	MARGINAL
5 to 10 (+) scores difference between PARTS I and II.	NO

RECEPTIVE OBJECT LABELS COMPARED TO EXPRESSIVE OBJECT LABELS (Understanding versus Use)

PART I: RECEPTIVE

Materials: 10 common objects which will also be used in PART II of this Assessment Task.

Procedures:

Select any 10 objects the student sees or uses daily that are small enough to use on a training table or lap tray. Write one object label beside each number (one through ten) of the scoring form.

1. Place three different objects on the table in front of the student. Use the order shown on the scoring form, placing the object to be used in that trial on the "X" position (e.g., if the scoring form shows - X - the examiner would place the objects, left to right, ball/shoe/cup, and would ask for shoe). Direct the student to watch as you place each object. Visually handicapped students should be allowed to handle all objects before each trial.

2. Establish attending.

3. Say "SHOW ME (OBJECT)" (e.g., "Show me ball") or some comparable instruction. Whatever form of instruction is chosen, use this same form throughout the Assessment Task.

4. Allow the student time to respond. Reinforce all correct responses.

5. Record the score for the response. Relevant comments during this Task would be what objects were chosen incorrectly, or where the objects were positioned that were chosen incorrectly. This should help the examiner see if the student is using a bias in responding.

6. Remove the object from in front of the student.

7. Begin the next trial, being careful to use different objects from trial to trial.

Recording:

+ : Correct. Student identified the requested object immediately.

P : Prompted. Student needed some added cue to complete the response.

- : Incorrect. Student identified a nonrequested object, or labeled the object expressively, or echoed the instruction.

0 : No Response. Student made no attempt to match the items.

PART II: EXPRESSIVE

Instructions for this part of the Assessment Task are identical to those for 2.02, Says Single Words clearly on pages 22-23. However, the same objects must be used for both parts of this Task (2.22).

ASSESSMENT TASK

2.22 Receptive versus Expressive Object Labels

Student ____________________ Examiner ____________________

Date ____________________

PART I: Receptive

	OBJECT	POSITION	SCORE
1.	____________________	-- X --	____
2.	____________________	X -- --	____
3.	____________________	-- -- X	____
4.	____________________	-- X --	____
5.	____________________	-- -- X	____
6.	____________________	X -- --	____
7.	____________________	-- X --	____
8.	____________________	X -- --	____
9.	____________________	-- -- X	____
10.	____________________	X -- --	____

PART II: Expressive

	OBJECT	RESPONSE DESCRIPTION	SCORE
1.	____________________	____________________	____
2.	____________________	____________________	____
3.	____________________	____________________	____
4.	____________________	____________________	____
5.	____________________	____________________	____
6.	____________________	____________________	____
7.	____________________	____________________	____
8.	____________________	____________________	____
9.	____________________	____________________	____
10.	____________________	____________________	____

Session Summary

PART I	+	P	-	0
PART II	+	S	-	0

Use the ranges below to score the Checklist entry:

0 to 2 (+) scores difference between PARTS I and II.	YES
3 or 4 (+) scores difference between PARTS I and II.	MARGINAL
5 to 10 (+) scores difference between PARTS I and II.	NO

RESPONDS TO AND SAYS OWN NAME 2.23

PART I: RECEPTIVE

Materials: none

Procedures:

This Assessment should be completed informally throughout the day whenever it may be functional for the student or a peer to respond to their names. Peer's names are intermixed within the assessment as discriminative stimuli.

1. Select a situation where the student is not attending to the examiner. The student may be either not attending during a training session or involved in a free or play activity.
2. Clearly call out the student's name.
3. Reinforce all correct responses as would be appropriate to the context.
4. Record the score for the response.
5. Repeat the trial at a later time in a different situation using either a peer's or the student's name.

Recording:

Any trial may be recorded as:

+ : Correct. Student showed some recognition to his/her name, either by turning to look at the examiner, stopping the present activity, etc. If the trial was of a peer's name a correct response would involve the student not responding to the name.

- : Incorrect. Student responded to a peer's name.

0 : No Response. Student showed no recognition to his/her name.

PART II: IMITATION

Procedures:

1. Establish attending.
2. The examiner says "SAY (NAME)", such as "Say Dave", or only "(NAME)" as "Dave".

3. Allow the student time to respond.

4. Reinforce correct responses.

5. Record the response description and score.

6. Begin the next trial whenever an appropriate situation arises.

Recording:

+ : Correct. Very close or perfect imitation.

S : Approximated. Close but sounds were not quite clear.

- : Incorrect: Said something completely different than the model.

0 : No response. Remained quiet for at least 10 seconds.

ASSESSMENT TASK

2.23 Responds to and Imitates Name

Student____________________ Examiner____________________

Date ____________________

PART I: RECEPTIVE

	NAME	SCORE
1. Student's name		
2. Peer's name		
3. Peer's name		
4. Student's name		
5. Student's name		
6. Peer's name		
7. Student's name		
8. Peer's name		
9. Peer's name		
10. Student's name		

PART II: IMITATION

	NAME	RESPONSE DESCRIPTION	SCORE
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Session Summary

PART I	+		-	0
PART II	+	S	-	0

Use the ranges below to score the Checklist entry: Subtract the total of (+) and (S) PART II scores from (+) PART I scores.

0 to 2 scores difference between PART II (+ & S) and PART I (+).	YES
3 to 4 scores difference between PART II (+ & S) and PART I (+).	MARGINAL
5 to 10 scores difference between PART II (+ & S) and PART I (+).	NO

RECEPTIVE VERSUS IMITATIVE ACTION LABELS

2.24

PART I: RECEPTIVE

Materials: Any objects needed to perform the actions selected for the Task.

Procedures:

Select any 10 verbs to be tested. Refer to the list below for possible verbs. Other common verbs may also be used. Write one verb label beside each number (one through ten) of the scoring form. The verbs selected need not involve objects, however.

1. Place at least three different objects in front of the student. Use the order shown on the scoring form, placing the object to be used in that trial in the "X" position. The other two objects are used to insure the student discriminates the verb, and not just the object function. That is, if the verb to be tested that trial is"drink" place a cup, a spoon, and a book in front of the student before beginning the trial. Instruct the student to look as you are placing each object. Visually handicapped students should be allowed to handle all three objects before each trial.

2. Use the word as an instruction. That is, say "John, drink". Do not say "Drink the pop" or "Cut the paper". Use only the action word.

NOTE: If a student is too physically handicapped to perform the actions, simple pictures of persons performing the actions may be used. If other adults are available, 2 or 3 may engage in different activities as the student is asked to look at a certain one ("Who is drinking?").

3. Allow the student adequate time to respond, reinforcing all correct responses.

4. Record the response.

5. Change the objects in front of the student, and begin the next trial.

Verb List

blowing
bouncing
brushing
clapping
closing
coloring
combing
cooking
coughing
crying
cutting
drawing
drinking
driving
falling
folding
gluing
hitting
jumping
kicking
laughing
laying
mopping
opening
painting
pasting
pointing
pouring
running
shaking

sitting
sleeping
sneezing
squeezing
stacking
standing
stirring
sweeping
swinging
throwing
turning
tying
walking
washing
writing

Recording:

Any trial may be recorded as:

+ : Correct. Student very closely or perfectly performed the action.

P : Prompted. Student needed an added cue to complete the response (e.g. repeated instructions, physical assistance, etc.)

- : Incorrect. Student performed some action other than the one told to do, or echoed the request, or resisted a physical prompt.

0 : No response. Student made no attempt to do the action after at least 10 seconds.

PART II: IMITATION

Conduct this Assessment just as 2.23, PART II. The models given for imitation are the action labels used in PART I of this assessment (2.24).

ASSESSMENT TASK

2.24 Receptive versus Imitative Action Labels

Student ____________________ Examiner ____________________

Date ____________________

PART I: Receptive

	ACTION	POSITION	SCORE
1.	____________________	-- X --	____
2.	____________________	X -- --	____
3.	____________________	-- -- X	____
4.	____________________	-- X --	____
5.	____________________	-- -- X	____
6.	____________________	X -- --	____
7.	____________________	-- X --	____
8.	____________________	X -- --	____
9.	____________________	-- -- X	____
10.		X -- --	

PART II: Imitation

	ACTION LABEL MODELED	RESPONSE DESCRIPTION	SCORE
1.	____________________	____________________	____
2.	____________________	____________________	____
3.	____________________	____________________	____
4.	____________________	____________________	____
5.	____________________	____________________	____
6.	____________________	____________________	____
7.	____________________	____________________	____
8.	____________________	____________________	____
9.	____________________	____________________	____
10.	____________________	____________________	____

Session Summary

PART I	+		-	0
PART II	+	S	-	0

Use the ranges below to score the Checklist entry: Subtract the total of (+) and (S) PART II scores from (+) PART I scores.

0 to 2 scores difference between PART II (+ & S) and PART I (+).	YES
3 to 4 scores difference between PART II (+ & S) and PART I (+).	MARGINAL
5 to 10 scores difference between PART II (+ & S) and PART I (+).	NO

RECEPTIVE COLOR AND SIZE LABELS VERSUS SAYING WORDS 2.25

PART I: RECEPTIVE COLORS

Materials: 5 objects, identical except for color (colored cards may be used).

Procedures:

Select 5 of any object. The only difference between any of the objects should be their color. The five objects should each be one of the following colors: red, orange, blue, green, and yellow. Each color is to be used twice during the task.

All other procedures used in this task are identical to those for PART I of 2.22, except the examiner should say "Show me (color)", (e.g. "Show me green.").

Recording:

Recording is the same as for PART I of 2.22 (page 34).

PART I: RECEPTIVE SIZE

Materials: Two sets of five objects; each set is identical except one is obviously smaller than the other.

Procedures:

Select two sets of any five objects the student knows, sees, or uses daily that are small enough to use on the training table. Write each object label twice on the scoring form, once for big and once for little. Scramble the order of the objects used. Be careful also to scramble which side the big or little object is placed during the trial. See the (-X) and (X-) on the form to help you scramble the placement.

1. Place identical objects in front of the student, one large and one small. Use the order shown on the scoring form, placing the object to be used in that trial in the "X" position. Direct the student to watch as you place each object onto the table. Visually handicapped students should be allowed to handle all objects before each trial.
2. After establishing attending, say "Show me the (size) (object)." (e.g. "Show me the big ball.").

All other procedures are identical to those for 2.22, PART I.

Recording:

Record as described in PART I of 2.22 (Pages 34 and 35).

PART II: SAYS SINGLE WORDS

Instructions for this part of the Assessment Task are identical to those for 2.02, Says Single Words Clearly on pages 22-23. If 2.02 has already been completed, simple transfer the Session Summary data onto the 2.21 Scoring Form.

ASSESSMENT TASK

2.25 Receptive Color and Size Labels/Saying Single Words

Student____________________ Examiner____________________

Date ____________________

PART I: RECEPTION

COLOR	POSITION	SCORE	SIZE	OBJECT	POSITION	SCORE
1. red	-- X --	____	11. big	______	-- X	____
2. orange	X -- --	____	12. little	______	X --	____
3. blue	-- -- X	____	13. little	______	X --	____
4. green	-- X --	____	14. little	______	-- X	____
5. yellow	-- -- X	____	15. big	______	-- X	____
6. orange	X -- --	____	16. big	______	X --	____
7. yellow	-- X --	____	17. little	______	X --	____
8. red	X -- --	____	18. little	______	-- X	____
9. green	-- -- X	____	19. big	______	X --	____
10. blue	X -- --	____	20. big	______	-- X	____

PART II: EXPRESSION

	OBJECT	RESPONSE DESCRIPTION	SCORE
1.	______	__________	____
2.	______	__________	____
3.	______	__________	____
4.	______	__________	____
5.	______	__________	____
6.	______	__________	____
7.	______	__________	____
8.	______	__________	____
9.	______	__________	____
10.	______	__________	____

Session Summary

PART I	+	P	-	0
PART II	+	S	-	0

Use the ranges below to score the Checklist entry: Subtract the total of (+) and (S) PART II scores from (+) PART I scores.

0 to 2 scores difference between PART II (+ & S) and PART I (+).	YES
3 to 4 scores difference between PART II (+ & S) and PART I (+).	MARGINAL
5 to 10 scores difference between PART II (+ & S) and PART I (+).	NO

HEARS LOUD NOVEL SOUNDS 2.61

Materials: Bell, Cymbals, Book, Tamborine (or comparable noise makers)
Two examiners

Procedures:

Select objects for at least five sounds which the student rarely hears in his/her daily environment. The data sheet provides 5 possible sounds, but any loud novel sound(s) may be used.

1. One examiner and the student are seated facing one another. The second examiner stands or kneels behind the student, out of his field of vision.
2. The seated examiner establishes attending with the student. It is very important that the student be quiet. He/She may be engaged in some quiet activity if the activity has the attention of the student.
3. The second examiner then uses one of the noise makers to make a loud sudden sound while the first examiner watches the student's reaction to the noise. The response may be as quick and simple as an eye blink, a hand jerk, or an attempt to turn and see the other examiner. If the student was engaged in an activity prior to the sound presentation, the student may stop the activity for a moment to attend to the sound.
4. Reinforce all responses the student makes to the sounds. In this task you may either verbally reinforce the student or give a tangible reinforcer.
5. Record the score for the response on the Scoring Form. Describe the response under the RESPONSE DESCRIPTION column if desired.
6. The first examiner again brings the student's attention to the front and the process repeats.

Recording:

Each time the second examiner asks the question, a trial should be recorded on the Scoring Form. Any trial may be recorded as:

+ : Correct. Student indicated in some way he(she) heard the sounds (the student does not need to localize the sound).

0 : No response. Student made no reaction to the noises.

NOTE: Always try to administer Assessment Tasks in section 2.6 in a fairly quiet setting.

HEARS LOUD TALKING 2.63

Materials: Cookie, candy, ball, book (or other motivating objects)

Procedures:

Select four objects which the student likes (food, toys, etc.). Place one object's label in each of the blanks allowed for questions on the Scoring form. Write the student's name in blanks #1 and #4.

All other procedures for this Task are identical to those for 2.61 except the second examiner asks the questions loudly while the first examiner watches the student's reaction to the speech. Also, during this Task the student may be reinforced for reacting to the speech by being given the toys or food.

Recording:

See Task 2.61

2.64

HEARS NORMAL TALKING

Materials: Same as used above (2.63)

Procedures:

All procedures for this Task are identical to those for 2.63 except the second examiner asks the question in a normal voice (not too soft, but not too loud).

Recording:

See Task 2.61.

ASSESSMENT TASK

2.61 Loud Novel Sounds
2.63 Loud Talking
2.64 Normal Talking

Student____________________ Examiner____________________

Date ____________________

LOUD SOUND	RESPONSE DESCRIPTION	SCORE
1. BELL RINGING		
2. DOOR SLAMMING		
3. CYMBAL CRASHING		
4. BOOK DROPPING		
5. TAMBORINE JINGLE		
6. BELL RINGING		
7. CYMBAL CRASHING		
8. BOOK DROPPING		
9. TAMBORINE JINGLE		
10. DOOR SLAMMING		

LOUD TALKING	RESPONSE DESCRIPTION	SCORE	Normal Talking	RESPONSE DESCRIPTION	SCORE
1. (NAME)______			1. (name)______		
2. WANT COOKIE?			2. want a cookie?		
3. HERE'S THE CANDY			3. here's the candy		
4. (NAME)______			4. (name)______		
5. WANT THE BALL?			5. want the ball?		
6. HERE'S THE BOOK			6. here's the book		
7. WANT A COOKIE?			7. want a cookie?		
8. WANT THE BALL?			8. want the ball?		
9. HERE'S THE CANDY			9. here's the candy		
10. WANT THE BOOK?			10. want the book?		

Session Summary

	+	0
2.61 LOUD NOVEL		
2.63 LOUD SPEECH		
2.64 NORMAL SPEECH		

Use the ranges below to enter the scores onto the checklist.

7 to 10 (+)	YES
4 to 6 (+)	MARGINAL
0 to 3 (+)	NO

3.01
3.02
3.03
3.04
3.05

IMITATES MANUAL SIGNS

Procedures:

1. The examiner says "DO THIS" and immediately presents the action described on the scoring form for that trial. Be sure to show the student the movement you want him/her to imitate. Demonstrate the action; do not tell him/her what to do.

2. All the student time to respond, reinforcing all correct responses.

3. Record the score for the response, describing any approximations under the RESPONSE DESCRIPTION.

4. Begin the next trial.

Recording:

+ : Correct. Student very closely or perfectly followed the model within 10 seconds.

S : Approximated. Student was close but not entirely correct in imitating the model.

P : Prompted. Student needed an added cue to complete the response.

- : Incorrect. Student did something completely different than the model, or repeated an earlier model.

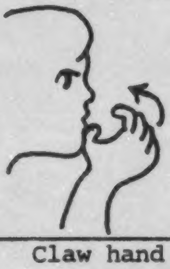
0 : No Response. Student remained still for at least 10 seconds.

NOTE: These Assessment Tasks were written using SEE$_2$ signs (Gustason, G., Pfetzing, D., and Zawolkow, E. Signing Exact English. Silver Spring, Maryland, Modern Sign Press, 1975. Available from National Association of the Deaf, 814 Thayer Avenue, Silver Spring, Maryland 20910). If another system of signing is used, the examiner may need to use other signs to control for the differences in movement. Instructions for the SEE$_2$ vocabulary are shown below.

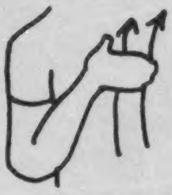
Instructions for Signs:

One Handed Signs

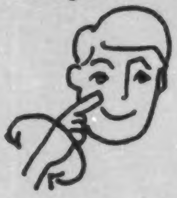
DRINK Thumb on chin, drink from "C" hand.



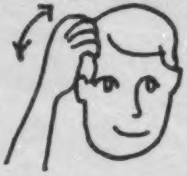
HAPPY Brush middle of chest upward twice with flat open hand.



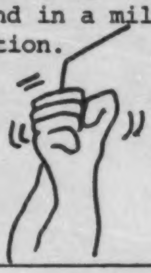
CANDY Twist hand, index finger on cheek.



COMB Claw hand near side of hair makes a combing motion.

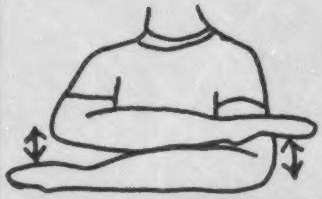


MILK Squeeze "S" hand in a milking-motion.

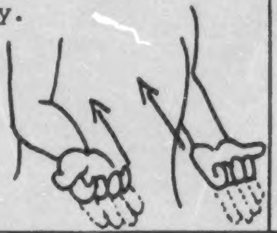


Two Handed Signs

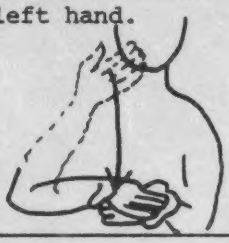
TABLE Right palm and elbow bounce on left arm.



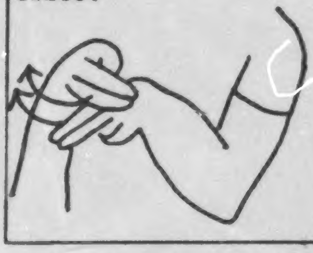
WANT Pull "5" hands back to claws toward body.



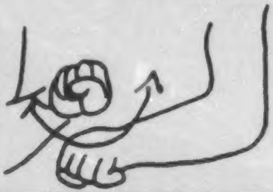
GOOD Palm-in fingers on chin drop to palm of left hand.



KNIFE Flick H off H twice.

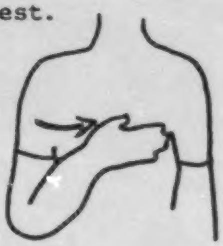


WORK Palm-out S arcs from side-to-side, hitting back of S.

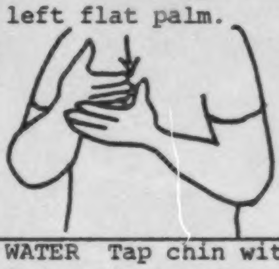


Touch Signs

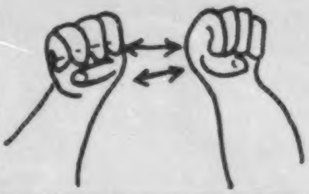
MY Place palm on chest.



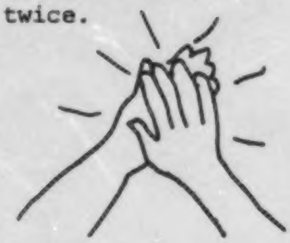
STOP Side of right flat hand chops into left flat palm.



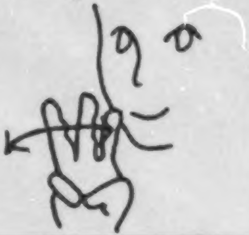
SHOE Bump "S" hands together twice.



SCHOOL Clap hands twice.

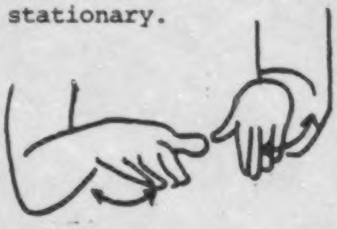


WATER Tap chin with index finger of W.

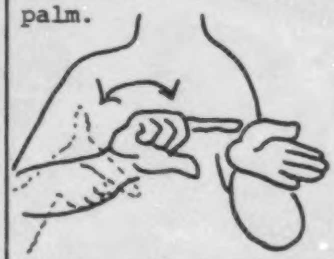


Nontouch Signs

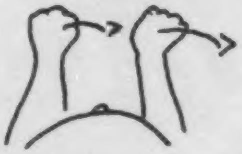
WALK Flip flat hand alternately, wrists stationary.



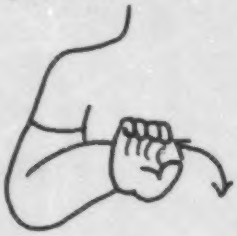
LOTION L shakes into palm.



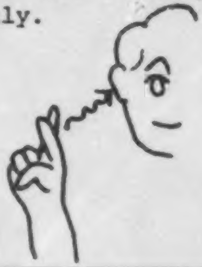
MOVE Palm-down flat-O's arc to right.



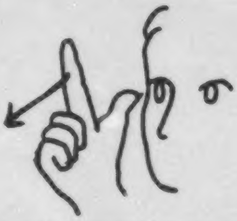
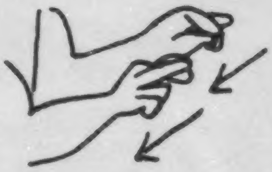
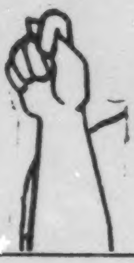
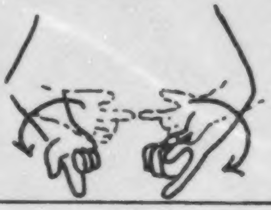
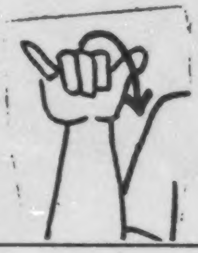
POWDER Shake C-hand to sprinkle.



RADIO R rises from side to ear, shaking slightly.



Signs for Hand Configurations

LOOK Thumb of L at eye; move forward. 	READY R-hands, palm-out, move to the right. 	TOILET Shake T. 
GO G-hands face each other, roll out to point forward. 	YES Nod Y-hand. 	

ASSESSMENT TASK

3.01 Imitates One-Handed Signs
3.02/4.03 Imitates Two-Handed Signs

Student ____________________ Examiner ____________________

Date ____________________

3.01 One-Handed			3.02/4.03 Two-Handed		
SIGN MODEL	RESPONSE DESCRIPTION	SCORE	SIGN MODEL	DESCRIPTION	SCORE
1. drink			1. table		
2. candy			2. good		
3. happy			3. want		
4. comb			4. knife		
5. milk			5. work		
6. candy			6. want		
7. milk			7. knife		
8. drink			8. table		
9. comb			9. work		
10. happy			10. good		

Session Summary

+	S	P	-	0

Session Summary

+	S	P	-	0

Use the ranges below to enter these scores onto the Checklist:

	3.01 & 3.02	4.03
6 to 10 (+)	YES	NO
3 to 5 (+) with 2 to 7 (S) and (P)	MARGINAL	MARGINAL
2 (+) with 6 to 8 (S) and (P)		
0 to 1 (+) with 8 to 10 (S) and (P)		
All other combinations	NO	YES

NOTE: This Assessment uses SEE_2 signs. The models may need to be changed if another system is used.

ASSESSMENT TASK

3.03 Imitates "Touch" Signs
3.04 Imitates "Nontouch" Signs

Student ______________________ Examiner ______________________

Date ______________________

3.03 Touch			3.04 Nontouch		
SIGN MODEL	RESPONSE DESCRIPTION	SCORE	SIGN MODEL	RESPONSE DESCRIPTION	SCORE
1. my			1. walk		
2. shoe			2. move		
3. stop			3. lotion		
4. school			4. powder		
5. water			5. radio		
6. school			6. move		
7. shoe			7. lotion		
8. water			8. powder		
9. my			9. walk		
10. stop			10. radio		

Session Summary

+	S̲	P	-	0

Session Summary

+	S̲	P	-	0

Use the ranges below to enter these scores onto the Checklist:

6 to 10 (+)	YES
3 to 5 (+) with 2 to 7 (S̲) and (P)	MARGINAL
2 (+) with 6 to 8 (S̲) and (P)	
0 to 1 (+) with 8 to 10 (S̲) and (P)	
All other combinations	NO

NOTE: This Assessment uses SEE$_2$ signs. The models may need to be changed if another system is used.

ASSESSMENT TASK

3.05 Imitates Signing Hand Configurations

Student ____________________ Examiner ____________________

Date ____________________

SIGN MODEL	RESPONSE DESCRIPTION	SCORE
1. look	________________	____
2. ready	________________	____
3. toilet	________________	____
4. go	________________	____
5. yes	________________	____
6. ready	________________	____
7. yes	________________	____
8. go	________________	____
9. look	________________	____
10. toilet	________________	____

Session Summary

+	S	P	-	0

Use the ranges below to enter these scores onto the Checklist:

6 to 10 (+)	YES
3 to 5 (+) with 2 to 7 (S) and (P)	MARGINAL
2 (+) with 6 to 8 (S) and (P)	
0 to 1 (+) with 8 to 10 (S) and (P)	
All other combinations	NO

NOTE: This Assessment uses SEE$_2$ signs. The models may need to be changed if another system is used.

TESTING NOTES FOR 3.1

The Tasks in Section 3.1 are not intended to test the student's imitative or direction following ability. They are meant simply to test the student's motor skills. The examiner may use any means available to help the student understand what movement to do.

The examiner may want to spend a few minutes with the student before each task explaining, showing and trying the movement needed for the trials.

ALSO ----

Section 3.1 assesses the hand and wrist movements needed for signing. It is often important to know, if the student does the movement incorrectly, how close the movement was to being correct. Written comments of the actual responses are quite helpful when interpreting the Task results.

FINALLY ----

The Section 3.1 Assessment Tasks each have two separate testing procedures. The first procedure involves the examiner attempting to elicit the response. The second procedure involves observation of the student's spontaneous motor skills. The first procedure is preferred for scoring the TCCA because it is assumed that the student will do better in sign training if the responses can be elicited in some way.

HAND MOVEMENT 3.11

This Assessment Task has two parts, one to determine how controlled simple movements of the thumb and fingers are, and one to determine control of independent finger movement. Each part has its own instructions and scoring form. Scores from both are combined to determine the Checklist Entry for 3.11.

Procedure I (Controlled Responses):

1. Place the student in a comfortable position with his/her hands free.
2. Place the student's hand as described below for each movement tested.
3. Give the verbal instruction suggested below or some other cue to student that he/she is to perform the specified movement.
4. Allow the student 5 seconds to respond, reinforcing all correct responses.
5. Score the response on the scoring form, describing any (S) responses.
6. Begin the next trial, completing 10 trials with the right hand.
7. Repeat the procedure using the left hand. Score each hand separately on the scoring form.

Recording:

+ : Correct. Within 5 seconds after the instruction the student gave the movement as described in the following Table.

S : Approximated. Student's fingers assumed only part of the movement.

P : Prompted. Student responded as described in Table only after being given some help from the examiner.

- : Incorrect. Student was unable to do the movement, or moved the hand in another way, or took longer than 5 seconds to respond.

0 : No Response. Student made no attempt to respond in any manner.

Procedure II Spontaneous Responses):

If the student scores all (-) or (0) trials, the examiner may observe the student's behavior during other daily activities for the finger or thumb movements tested.

Recording:

* : Spontaneous. Examiner observed at least two times when the student's hand made the movements.

TABLE 2

MOVEMENT	HAND PLACEMENT BEFORE TRIAL	INSTRUCTION	ALTERNATE CUES
Thumb Out (at least 1 inch)	Place hand (and hold in position as necessary) palm down, thumb against palm side off index finger.	"Move your thumb out"	
Thumb In	Place hand (and hold as needed) palm down, thumb held away from palm.	"Move your thumb in" "Do this.."	Place small object between thumb and hand to be grasped by moving thumb in.
Thumb Up From Table Surface (at least 1 inch)	Place hand (and hold as needed) palm up, thumb held flat on table surface.	"Move your thumb up" "Do this.."	Place small object on open palm for student to grasp by moving thumb up and down.
Thumb Down	Place hand palm up, with thumb above the palm.	"Move your thumb down" "Do this.."	
Thumb Touches Little Finger	Place hand open, palm up.	"Touch your thumb" "Do this.."	Place a bit of candy on tip of little finger.
Makes a Fist	Hold hand open, all fingers extended.	"Close your hand" "Do this.."	Place toy or edible in open hand to clasp.
Straightens Fingers	Hold hand in closed fist.	"Open your hand" "Do this.."	Place an object just out of reach which student will reach for.
Presses Fingers Together	Place hand palm down, fingers spread.	"Put your fingers together" "Do this.."	Observe student putting on a mitten.
Spreads Fingers Apart	Place hand palm down, fingers pressed together.	"Spread your fingers apart"	

ASSESSMENT TASK

3.11a Finger and Thumb Movement
4.02 Imitates Finger Movements

Student ______________________ Examiner ______________________

Date ______________________

	RESPONSES ON THE RIGHT		RESPONSES ON THE LEFT	
MOVEMENT	RESPONSE DESCRIPTION	SCORE	RESPONSE DESCRIPTION	SCORE
Thumb Out	1. ______________	_____	1. ______________	_____
Thumb In	2. ______________	_____	2. ______________	_____
Thumb Up	3. ______________	_____	3. ______________	_____
Thumb Down	4. ______________	_____	4. ______________	_____
Thumb to Little Finger	5. ______________	_____	5. ______________	_____
Makes a Fist	6. ______________	_____	6. ______________	_____
Straightens Fingers	7. ______________	_____	7. ______________	_____
Presses Fingers Together	8. ______________	_____	8. ______________	_____
Spreads Fingers Apart	9. ______________	_____	9. ______________	_____
Makes a Fist	10. ______________	_____	10. ______________	_____

Sessions Summary

	+	S	P	-	0	*
RIGHT						
LEFT						

Combine scores for 3.11a and 3.11b before scoring Checklist Use the ranges below to score the Checklist.

		3.11b	4.02
For each hand	12 to 20 (+)	YES	NO
For one or both hands	6 to 10 (+) with 4 to 14 (S) and (P)	MARGINAL	MARGINAL
	4 (+) with 12 to 16 (S) and (P)		
	0 to 2 (+) with 6 to 20 (S) and (P)		
	*		
	All other combinations	NO	YES

INDEPENDENT FINGER MOVEMENT

3.11b

Materials: None

Procedure I (Controlled Responses):

1. Place the student in a comfortable position with his/her hands free.

2. The examiner will demonstrate each of the five following movements and say, "Do this". Any other instruction may be used to help the student understand that he/she is to imitate the movement with the right hand. Before each movement is shown the examiner may physically put the student's fingers through the correct response.

3. Allow the student 5 seconds to respond, reinforcing all correct responses.

4. Score the responses on the scoring form, describing any approximated or prompted responses.

5. Test each movement twice, completing 10 trials with the right hand.

6. Repeat the procedure using the left hand. Score each hand separately on the scoring form.

This Task uses five hand configurations similar to those used for alphabet letters. The movements are described below:

a. Thumb up with the other four fingers in a fist. Looks like an "A" hand with the thumb up.

b. Index finger up with the other four fingers in a fist. Looks like a number "1" hand.

c. Index finger and thumb out with the other three fingers in a fist. Looks like an "L" hand.

d. Little fingers up with the other four fingers in a fist. Looks like an "I" hand.

e. Index finger and middle finger up with the other three fingers in a fist. Looks like an "H" hand.

Recording:

+ : Correct. Within 5 seconds after the instruction the student made the correct hand movement.

P : Prompted. Student responded as described above only after being given some help from the examiner.

S : Approximated. Student's hand assumed only part of the correct response.

P : Prompted. Student responded as described above only after being given some help from the examiner

- : Incorrect. Student was unable to do the movement or moved the hand in a different manner, or took longer than 5 seconds to complete the movement.

O : No Response. Student made no attempt to respond in any manner.

Procedure II (Spontaneous Responses):

If the student scores all (-) or (0) trials, the examiner may observe the student's behaviors during other daily activities to see if he/she will do any of the 5 movements spontaneously.

Recording:

* : Spontaneous. Examiner observed at least 3 of the 5 items. (Write on the form what the items were and which hand moved).

ASSESSMENT TASK

3.11b Independent Finger Movement
4.02 Imitates Finger Movements

Student ______________________ Examiner ______________________

Date ______________________

	RESPONSES ON THE RIGHT			RESPONSES ON THE LEFT		
MOVEMENT		RESPONSE DESCRIPTION	SCORE		RESPONSE DESCRIPTION	SCORE
Letter "A"	1.			1.		
Number "1"	2.			2.		
Letter "L"	3.			3.		
Letter "I"	4.			4.		
Letter "H"	5.			5.		
Letter "L"	6.			6.		
Letter "H"	7.			7.		
Letter "A"	8.			8.		
Number "1"	9.			9.		
Letter "I"	10.			10.		

Session Summary

	+	S	P	-	0	*
RIGHT						
LEFT						

Combine scores for 3.11a and 3.11b before scoring Checklist. Use the ranges below to score the Checklist.

		3.11b	4.02
For each hand	12 to 20 (+)	YES	NO
For one or both hands	6 to 10 (+) with 4 to 14 (S) and (P)	MARGINAL	MARGINAL
	4 (+) with 12 to 16 (S) and (P)		
	0 to 2 (+) with 6 to 20 (S) and (P)		
	*		
	All other combinations	NO	YES

MOVES ELBOW 3.12

NOTE: This movement would be needed for pointing, signing, and possibly button pressing.

Materials: A table or wheelchair tray on which the student can rest his/her arm.

Procedure I (Controlled Responses):

1. The student should be positioned in a sitting poisition next to the table or tray with his/her right arm resting on the surface.

2. For the "bends elbow" trials the examiner should straighten the student's right arm at the elbow joint as much as possible without forcing it. For the "straightens elbow" trials the examiner places the arm in a bent position.

3. Place a desirable object (toy, edible, etc.) in a location on the table that will require the complete bending or straightening of the elbow to touch the object. For example, if the student's arm is straight out in from of him, place the object close to his body so that the only way to touch the object is to bend the elbow.

4. Say "TOUCH THE (OBJECT)" (e.g. "Touch the ball"). The examiner may show the student what to do if necessary. Also, the examiner may physically help the student through the correct movement before the trials begin as a learning procedure if the student does not appear to understand what is to be done.

5. Reinforce all correct responses. (An effective reinforcer for this Task is often to give the student the item touched. If food or drink are used give the student only a little bit after each trial.)

6. Score all responses, describing any prompted or approximated responses.

7. Begin the next trial, repeating this procedure for a total of 10 trials.

8. Run 10 trials with the left arm. Score each arm separately on the Scoring Form.

Recording:

+ : Correct. Student moved the elbow in at least a 90° arc within 10 seconds following the examiner's instructions.

S : Approximated. Student moved the elbow less than 90° within 10 seconds following the instruction.

P : Prompted. Student moved the elbow in at least a 90° arc within 10 seconds after receiving some physical assistance from the examiner.

- : Incorrect. Student's arm does not bend or straighten in a 90° arc, or moved in another wrong direction, or took longer than 10 seconds to respond.

0 : No response. Student made no attempt to move.

Procedure II (Spontaneous Responses):

If the student received all (-) or (0) scores on the controlled responses, the examiner may observe the student's behavior at another time during the day for the possibility of a spontaneous elbow movement. If the examiner observes at least 2 spontaneous movements, the score may be recorded on the scoring form in the "Spontaneous" box.

Recording:

* : Spontaneous. Examiner observed at least two independent elbow straightening or bending movements that were close to 90° arcs at any time during the day.

ASSESSMENT TASK

3.12 Moves Elbow

Student______________________ Examiner______________________

Date ______________________

	RIGHT ELBOW		LEFT ELBOW	
MOVEMENT	RESPONSE DESCRIPTION	SCORE	RESPONSE DESCRIPTION	SCORE
Bends	1.________	____	1.________	____
Straightens	2.________	____	2.________	____
Straightens	3.________	____	3.________	____
Bends	4.________	____	4.________	____
Straightens	5.________	____	5.________	____
Straightens	6.________	____	6.________	____
Straightens	7.________	____	7.________	____
Bends	8.________	____	8.________	____
Bends	9.________	____	9.________	____
Bends	10.________	____	10.________	____

Session Summary

	+	S	P	–	0	*
RIGHT						
LEFT						

Use the ranges below to score the Checklist

FOR EACH ELBOW	6 to 10 (+)	YES
FOR ONE ELBOW	6 to 10 (+)	MARGINAL
FOR ONE OR BOTH ELBOWS	3 to 5 (+) with 2 to 7 (S) and (P)	
	2 (+) with 6 to 8 (S) and (P)	
	0 to 1 (+) with 3 to 10 (S) and (P)	
	*	
	All other combinations	NO

Procedure I (Controlled Responses):

1. Place the student's right forearm on the table as described in the Table. The student's arm should not leave the table's surface during the trials. It may be necessary for the examiner to place his/her hand over the student's forearm to insure its stability.
2. Give the verbal instruction for that trial (Table 3) or use some other cue to elicit the response.
3. Reinforce the response if correct.
4. Score and/or describe the response on the scoring form.
5. Begin the next trial, completing 10 trials with the right hand.
6. Repeat the procedure using the left hand. Score each hand separately on the scoring form.

TABLE 3

MOVEMENT	ARM PLACEMENT BEFORE TRIAL	INSTRUCTION	ALTERNATE CUES
Turn palm up (touch most of palm back to table)	Place forearm on table, palm down	"Turn your hand up" "Do this..."	
Turn palm down	Place forearm on table, palm up	"Turn you hand over" "Do this..."	Place toy or food beside palm for student to touch.
Bend wrist up (at least 45)	Place forearm on table, palm down	"Raise your hand" "Do this..." "Touch my hand"	Place toy or your hand above the student's hand.
Bend wrist back (down at least 45)	Place forearm with wrist at edge so hand extends beyond the table. Palm should be down. Hold hand so wrist is straight.	"Put your hand down" "Do this..."	Place toy below student's hand.

Recording:

+ : Correct. Within 5 seconds of the instruction the student completed the wrist movement.

S : Approximated. Student turned the hand so only part of the back of the hand was touching the table top (hand only turned part of the way over).

P : Prompted. Student responded as described above only after being given some help from the examiner.

- : Incorrect. Student was unable to turn the hand over, or moved the hand in another way, or took longer than 5 seconds to respond.

0 : No Response. Student made no attempt to turn the hand over.

Procedure II (Spontaneous Responses):

If the student scores all (-) or (0) trials, the examiner may observe the student's behaviors during other daily activities for a possible movement of the hand turning or bending.

Recording:

* : Spontaneous. Examiner observed at least two times when the student moved the wrist.

ASSESSMENT TASK

3.13 Wrist Movement

Student ____________________ Examiner ____________________

Date ____________________

	RIGHT WRIST			LEFT WRIST	
		RESPONSE DESCRIPTION	SCORE		RESPONSE DESCRIPTION	SCORE
Bends Wrist Back	1.			1.		
Turns Palm Up	2.			2.		
Turns Palm Down	3.			3.		
Bends Wrist Back	4.			4.		
Turns Palm Down	5.			5.		
Bends Wrist Down	6.			6.		
Turns Palm Up	7.			7.		
Turns Palm Up	8.			8.		
Bends Wrist Down	9.			9.		
Bends Wrist Back	10.			10.		

SESSION SUMMARY

	+	S	P	-	0	*
RIGHT						
LEFT						

Use the ranges below to score the Checklist

FOR EACH WRIST	6 to 10 (+)	YES
FOR ONE WRIST	6 to 10 (+)	MARGINAL
FOR ONE OR BOTH WRISTS	3 to 5 (+) with 2 to 7 (S) and (P)	
	2 (+) with 6 to 8 (S) and (P)	
	0 to 1 (+) with 3 to 10 (S) and (P)	
	*	
	All other combinations	NO

SHOULDER MOVEMENT 3.14

NOTE: This movement would be needed for pointing, signing and possibly for using a switch or button press.

Procedure I (Controlled Responses):

1. Place the student in a comfortable sitting position with his/her right arm in the placement described in Table
2. The examiner should hold a toy or edible as described in Table for the student to touch. The toy should be far enough away that the student will have to reach for it. The examiner should then say "Reach for the (Object)" (e.g., "Reach for the ball.").
3. Observe and record all responses. Describe all approximated responses.
4. Reinforce correct responses and also those in which the student tried hard to complete.
5. Begin the next trial, completing 10 trials with the right arm.
6. Repeat the procedure using the left arm. Score each arm separately on the scoring form.

Recording:

+ : Correct. Within 5 seconds after the instruction the student moved his/her arm as described in the Table and Figure

S : Approximated. Within 5 seconds after the instruction the student raised his/her arm at the shoulder only part of the way up to horizontal.

P : Prompted. Student responded as described in Table after being given physical help from the examiner.

- : Incorrect. Student was unable to lift the arm while trying to do so, or moved another body part, or took longer than 5 seconds to respond.

0 : No response. Student made no attempt to move the arm.

Procedure II (Spontaneous Responses):

If the student scores all (-) or (0) trials, the examiner may observe the student during any daily activity for the ability to raise the arm forward.

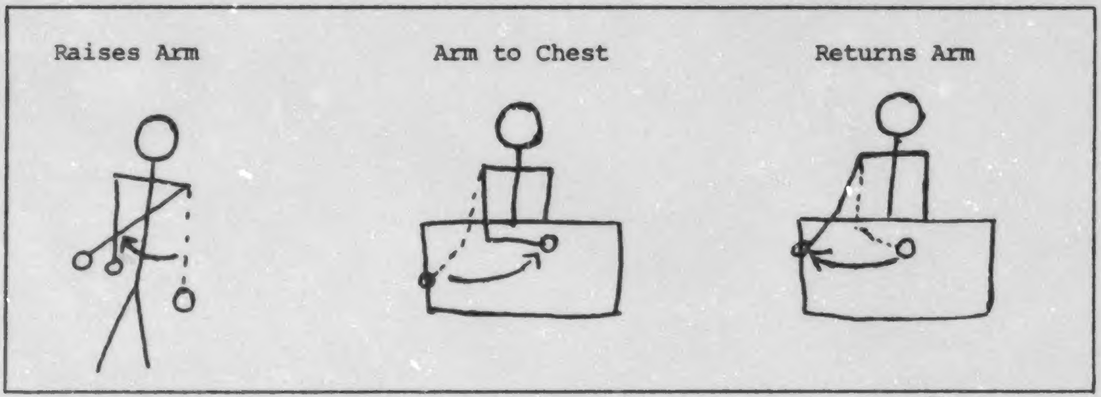
Recording:

* : Spontaneous. Examiner observed at least two times when the student lifted the arm at least part way up (note on the scoring form if it was the right arm or the left arm).

TABLE 4

MOVEMENT	ARM PLACEMENT BEFORE TRIAL	OBJECT PLACEMENT BEFORE TRIAL
Raises arm parallel to the floor.	Arm in lap or down to student's side (not resting on table).	Object at shoulder height in front, far enough away and up that the student will have to reach for it.
Moves arm across midline to chest.	Forearm on table close to side at right angle to body.	Object placed on table opposite the arm being tested.
Returns arm from chest across midline to side.	Forearm across in front of chest.	Object placed on table in front of arm (shoulder) being tested.

Figure 3



ASSESSMENT TASK

3.14 Shoulder Movement

Student ______________________ Examiner ______________________

Date ______________________

	RIGHT SHOULDER			LEFT SHOULDER	
MOVEMENT		RESPONSE DESCRIPTION	SCORE	RESPONSE DESCRIPTION	SCORE
Raises Arm	1.	____________	____	1. ____________	____
Arm to Chest	2.	____________	____	2. ____________	____
Arm Away From Chest	3.	____________	____	3. ____________	____
Raises Arm	4.	____________	____	4. ____________	____
Arm to Chest	5.	____________	____	5. ____________	____
Arm Away From Chest	6.	____________	____	6. ____________	____
Raises Arm	7.	____________	____	7. ____________	____
Arm Away From Chest	8.	____________	____	8. ____________	____
Arm to Chest	9.	____________	____	9. ____________	____
Raises Arm	10.	____________	____	10. ____________	____

Session Summary

	+	S	P	-	0	*
RIGHT						
LEFT						

Use the ranges below to score the Checklist

FOR EACH ARM	6 to 10 (+)	YES
FOR ONE ARM	6 to 10 (+)	MARGINAL
FOR ONE OR BOTH ARMS	3 to 5 (+) with 2 to 7 (S) and (P)	
	2 (+) with 6 to 8 (S) and (P)	
	0 to 1 (+) with 3 to 10 (S) and (P)	
	*	
	All other combinations	NO

MANIPULATED HAND MOVEMENT

3.21
3.22

Procedures:

All procedures for this Task are the same as for Task 3.11b except that now the student's hand is molded by the examiner into the configuration being tested. In this Task (3.21 and 3.22), the student is not given an opportunity to respond to a model or instruction. Also because this Task involves the student's response to a physical prompt, Procedure II of Task 3.11b (i.e., spontaneous scoring) is irrelevant here.

Recording:

+ : Correct. Student allowed examiner to completely manipulate his/her fingers into position.

- : Incorrect. Student would not allow the manipulation or exhibited physical handicaps which interfered with the movement.

ASSESSMENT TASK

3.21 and 3.22 Manipulated Finger Movement

Student ______________________ Examiner ______________________

Date ______________________

		RESPONSES ON THE RIGHT			RESPONSES ON THE LEFT	
MOVEMENT		RESPONSE DESCRIPTION	SCORE		RESPONSE DESCRIPTION	SCORE
Letter "A"	1.			1.		
Number "1"	2.			2.		
Letter "L"	3.			3.		
Letter "I"	4.			4.		
Letter "H"	5.			5.		
Letter "L"	6.			6.		
Letter "H"	7.			7.		
Letter "A"	8.			8.		
Number "1"	9.			9.		
Letter "I"	10.			10.		

Session Summary

	+	-
3.21 Right Hand		
3.22 Left Hand		

Use the ranges below to score the Checklist:

7 to 10 (+)	YES
4 to 6 (+)	MARGINAL
0 to 3 (+)	NO

3.23
3.24

MANIPULATED WRIST, ELBOW, AND SHOULDER MOVEMENTS

Procedures:

Procedures for this Task are basically the same as those for 3.12, 3.13, and 3.14 except that now the student's writs, etc. are physically put through the movements to see how the student responds to a physical prompt. Also since no spontaneous responding is possible with this Task, no (*) recording is used.

Recording:

+ : Correct. Student allowed examiner to completely manipulate the arm or wrist into position.

- : Incorrect. Student would not allow the manipulation or has a physical handicap which inhibited the movement.

ASSESSMENT TASK

3.23 & 3.24 Manipulated Wrist, Elbow, and Shoulder Movements

Student________________________ Examiner________________________

Date ________________________

	3.23 Right Side		3.24 Left Side	
MOVEMENT	RESPONSE DESCRIPTION	SCORE	RESPONSE DESCRIPTION	SCORE
Turns Palm Up	1. __________	____	1.__________	____
Turns Palm Down	2. __________	____	2.__________	____
Bends Wrist Up	3. __________	____	3.__________	____
Bends Wrist Back	4. __________	____	4.__________	____
Bends Elbow	5. __________	____	5.__________	____
Straightens Elbow	6. __________	____	6.__________	____
Raises Arm	7. __________	____	7.__________	____
Arm Across Chest	8. __________	____	8.__________	____
Return Arm Across Chest	9. __________	____	9.__________	____
Return Arm Across Chest	10. __________	____	10.__________	____

Session Summary

	+	-
3.23 RIGHT		
3.24 LEFT		

Use the ranges below to score the Checklist.

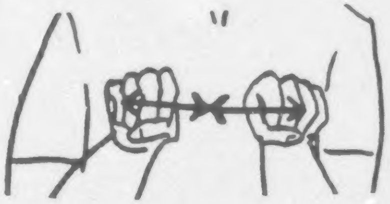
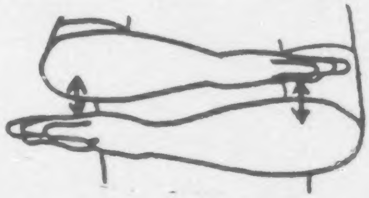
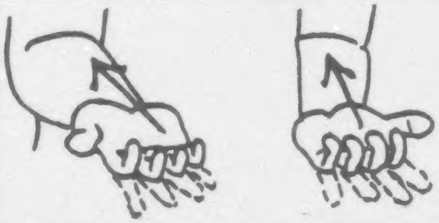
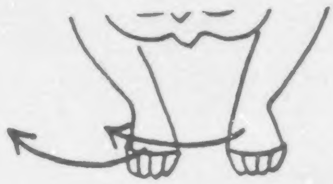
7 to 10 (+)	YES
4 to 6 (+)	MARGINAL
0 to 3 (+)	NO

SIMULTANEOUS MANIPULATIONS 3.25

Procedures:

1. Place the student in a comfortable position with hands and arms free.
2. Examiner physically puts the student through the five signs listed below.
3. Reinforce each correct response.
4. Score each trial.
5. Test each manipulation twice, completing 10 trials.

The signs/configurations using simultaneous hand and arm movements used in the Task are:

SHOE	Bump "S" hands together twice.	
TABLE	Right palm and elbow bounce on left arm.	
WANT	Pull "5" hands back to claws toward body.	
MOVE	Palm down flat "O" hands arc to right.	

ASSESSMENT TASK

3.25 Simultaneous Manipulations

Student____________________ Examiner____________________

Date____________________

MOVEMENT	RESPONSE DESCRIPTION	SCORE
1. shoe		
2. table		
3. walk		
4. want		
5. move		
6. shoe		
7. table		
8. walk		
9. want		
10. move		

Session Summary

+	-

Use the ranges below to score the Checklist:

7 to 10 (+)	YES
4 to 6 (+)	MARGINAL
0 to 3 (+)	NO

REQUESTS BY POINTING TO DESIRED OBJECTS 3.32

Materials: Five preferred objects or foods

Procedures:

Select any 5 items which the student prefers over others. These may be food, drink, toy, or entertainment items. Write the objects used on the upper portion of the scoring form.

1. Set the items out of the student's reach, but still in sight. Often the student may need to be given a short opportunity to sample each item before testing begins.
2. Ask the student "What do you want?".
3. Allow the student time to respond.
4. Ignore incorrect responses, pausing a few moments before the next trial.
5. Prompt the response if none occurs.
6. Immediately give the student any item requested. Allow him/her to use the item for a short time, then request its return (except for food or drink, of course). It is entirely possible the student will request the same item repeatedly. These are still correct responses.
7. Record the response, then replace the requested item to the group (pour more drink, etc.).
8. Ask again, "What do you want?".

NOTE: If the student points to an item before the examiner asks "What do you want?", this response is reinforced and recorded also as a (+).

Recording:

+ : Correct. Student pointed to one of the objects.

P : Prompted. Student pointed only after an added cue was given.

- : Incorrect. Student gave some out of context response.

0 : No response. Student made no attempt to respond.

REJECTS OBJECT BY PUSHING OBJECT AWAY 3.33

Materials: Five objects which are aversive or non-reinforcing to the student.

Procedures:

This task is completed exactly like 3.32 except that nonpreferred objects (vinegar, sand, medicinal mouth wash, etc.) are offered, and the objects are offered to the student one at a time. That is, if the student requests any of the items, he/she should be given some.

Recording:

All recording is identical to 3.32 except a correct response is when the student used some type of hand gesture to indicate rejection of the items.

REQUESTS OBJECTS USING NATURAL GESTURES 3.34

Materials: Five preferred objects or foods.

Procedures:

This task is completed exactly like 3.32. The only difference involves the type of response the student is expected to use to request the items. The gesture should be more abstract than a point. For example, to request food or drink, the student may touch their mouth or to request a ball, the student may make a bouncing motion.

Recording:

+ : Correct: Student used some type of gesture other than pointing to request an object or activity.

S : Approximated. Student simply pointed to the desired object.

P : Prompted. Student used a gesture only after an added cue was given.

- : Incorrect. Student gave some out of context response.

O : No response. Student made no attempt to respond.

ASSESSMENT TASK

3.32 Requests by Pointing to Objects
3.33 Rejects Objects
3.34/4.13 Uses Natural Gestures

Student________________________ Examiner________________________

Date___________________________

Objects 1)______________ 4)______________

2)______________ 5)______________

3)______________

SCORE

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Session Summary

+	3.34 S	P	-	0

Use the ranges below to score the Checklist:

	3.32-3.34	4.13
7 to 10 (+)	YES	NO
4 to 6 (+)	MARGINAL	MARGINAL
0 to 3 (+)	NO	YES

FOLLOWS DISTANT MOVEMENT 3.62

Prerequisites: Sitting (or if physically handicapped, positioned upright)

Materials: Preferred object or toy

Procedures:

1. The student should be seated in a fairly large room.
2. The examiner assumes the beginning position described on the form.
3. Establish attending. The student must look in the examiner's direction shortly before the movement begins.
4. Move as directed by the scoring form, being careful to make as little noise as possible while moving.
5. Observe the student's response, reinforcing any correct responses.
6. Record the response and go on to the next trial.

Recording:

Each time the examiner goes through the motions described on the data sheet, a trial should be recorded. Responses are recorded as follows:

+ : Correct. Student visually followed the entire movement.

S : Partial. Student followed only part of the movement.

0 : No response. Student did not attend to the examiner.

ASSESSMENT TASK

3.62 Follows Distant Movement

Student____________________ Examiner____________________

Date______________________

	RESPONSE DESCRIPTION	SCORE
1. Walk, from 8 feet in front, toward student		
2. Walk, from 8 feet in front, from left to right		
3. Hold hands above head; kneel; hands down; rise; hands up		
4. Holding favorite toy, walk 8 feet in front from left to right		
5. Sit in chair, 8 feet to slight right of student; stand; walk away from chair; return to chair; sit		
6. Walk from directly in front of student to 8 feet away		
7. Walk, from 8 feet in front, from right to left		
8. Hold hands above head; kneel; hands down; rise; hands up		
9. Holding favorite toy, walk 8 feet in front from right to left		
10. Sit in chair, 8 feet to slight left of student; stand; walk away from chair; return to chair; sit		

Session Summary

+	S	0

Use the ranges below to score the Checklist:

6 to 10 (+)	YES
3 to 5 (+) with 2 to 7 (S)	MARGINAL
2 (+) with 6 to 8 (S)	
0 to 1 (+) with 8 to 10 (S)	
All other combinations	NO

FOLLOWS CLOSE MOVEMENT 3.63

Prerequisites: Positioning to allow eye and/or head movement

Materials: Ball, block, cookie, can, book kleenex, comb, doll, cup, spoon

Procedures:

The scoring form describes activities with ten objects. Any 10 objects may be used which are fairly large and motivating to the student.

1. The student and examiner should be seated on the floor or at a table.
2. Wait until the student is quiet. Direct him (her) to be still if necessary.
3. Perform the activity as described on the data sheet. Verbal directions such as "Look at the cookie" may be given to the child as each object is presented.
4. Observe and record the student's response.
5. Reinforce correct responses by allowing the student to eat or play with the object before the next trial.

Recording:

See task 3.62

NOTE: The Assessment Task remains almost identical to the one written by Campbell.

ASSESSMENT TASK

3.63 Follows Close Movement

Student ______________________ Examiner ______________________

Date ______________________

RESPONSE DESCRIPTION SCORE

1. Move ball at the student's eye level horizontally from the right slowly to the left ______________________ ____
2. Move block at the student's eye level horizontally from the right slowly to the left ______________________ ____
3. Move cookie at the student's eye level horizontally from the left slowly to the right ______________________ ____
4. Move cup at the student's eye level horizontally from the left slowly to the right ______________________ ____
5. Move car midline to the student vertically from student's waist to above head ______________________ ____
6. Move spoon midline to the student vertically from student's waist to above head ______________________ ____
7. Move book or magazine midline to the student vertically from above student's head down to waist ______________________ ____
8. Move kleenex midline to the student vertically from above student's head down to waist ______________________ ____
9. Move comb diagonally from the student's lower left to upper right ______________________ ____
10. Move doll diagonally from the student's lower right to upper left ______________________ ____

Session Summary

+	S	C

Use the ranges below to score the Checklist:

6 to 10 (+)	YES
3 to 5 (+) with 2 to 7 (S)	MARGINAL
2 (+) with 6 to 8 (S)	
0 to 1 (+) with 8 to 10 (S)	
All other combinations	NO

SEES SMALL OBJECTS 3.64

Materials: One large sheet of paper (at least 15" by 18") and some small objects such as peanuts, marbles, etc.

Procedures:

Select any number of small objects to be used in this task. The most preferred objects are less than 3/4 inch in size and have some reinforcing quality for that student.

1. The student and examiner should be seated on the floor or at a table. The student's face should be at least 10 inches from the working surface where the objects are to be placed.
2. Hold the large sheet of paper between the student and the examiner, to hide the table surface.
3. Place the small object randomly to the surface behind the paper. The student should not see where the object is placed.
4. Remove the paper.
5. Ask "Where's the (object)?" (e.g. "Where's the candy?").
6. Allow the student enough time to respond.
7. Record the response.
8. Reinforce the correct responses.
9. Begin the next trial, placing the small object in a different location each trial.

Recording:

Each time the student is asked to locate the small object, a response should be recorded.

Each trial is recorded as follows:

+ : Correct. After being asked "where", student pointed to, touched, picked up, or looked directly at the object, or before being asked, student found the object.

P : Prompted. Student required an added cue to complete the response, such as the examiner moving a hand generally over the surface area, etc.

0 : No response. Student showed no indication of seeing the object.

ASSESSMENT TASK

3.64 Sees Small Objects

Student ______________________ Examiner ______________________

Date ______________________

	OBJECT	SCORE
1.	____________________	_____
2.	____________________	_____
3.	____________________	_____
4.	____________________	_____
5.	____________________	_____
6.	____________________	_____
7.	____________________	_____
8.	____________________	_____
9.	____________________	_____
10.	____________________	_____

Session Summary

+	P	0

Use the ranges below to score the Checklist:

6 to 10 (+)	YES
3 to 5 (+) with 2 to 7 (P)	MARGINAL
2 (+) with 6 to 8 (P)	
0 to 1 (+) with 8 to 10 (s)	
All other combinations	NO

IMITATES FINE MOVEMENTS 4.01

Materials: Poker chip, 2" button, zipper, spoon, crayon, dial phone, knob for turning, bottle with lid, tube of toothpaste, book

Procedures:

1. The examiner says "DO THIS" and immediately presents the action described on the scoring form for that trial. Be sure to show the student the movement you want him/her to imitate. Demonstrate the action; do not tell him/her what to do.

2. Allow the student time to respond, reinforcing all correct responses.

3. Record the score for the response, describing any approximations under the RESPONSE DESCRIPTION column.

4. Begin the next trial.

Recording:

+ : Correct. Student very closely or perfectly followed the model within 10 seconds.

S : Approximated. Student was close but not entirely correct in imitating the model.

P : Prompted. Student needed an added cue to complete the response.

- : Incorrect. Student did something completely different than the model, or repeated an earlier model.

0 : No response. Student remained still for at least 10 seconds.

ASSESSMENT TASK

4.01 Imitates Fine Motor Movements
4.32 Understands Turn-Taking

Student ______________________ Examiner ______________________

Date ______________________

MODEL (Action shown to student)	RESPONSE DESCRIPTION	SCORE
1. pick up poker chip		
2. button 2" button		
3. zip		
4. eat from spoon		
5. mark with crayon		
6. dial phone		
7. turn knob on music box		
8. remove bottle lid		
9. squeeze toothpaste tube		
10. turn book page		

Session Summary

+	S	P	-	0

Use the ranges below to score the Checklist:

All combinations not mentioned below	YES
2 (+) with 6 to 8 (S) and (P)	MARGINAL
3 to 5 (+) with 2 to 7 (S) and (P)	
6 to 10 (+)	NO

IMITATES FINGER MOVEMENTS 4.02

Procedures:

This Assessment Task is administered just as Task 3.11, Finger Movements with one exception. Task 3.11 does not test the student's imitation skills. The purpose of Task 3.11 is to determine if the student is physically able to make the movements tested. However, 4.02 is a test of imitation as such, the student should be given the model to imitate as a part of each trial. Because imitation requires a discrete stimulus presentation, Procedure II, Spontaneous Movement is not relevant to 4.02.

Recording:

Responses are scored exactly as defined in Task 4.01 except that (*) scores are omitted. Use the scoring form provided for Task 3.11.

IMITATION OF SIGNS 4.03

Procedures:

Administer Assessment Task 3.02, Imitates Two Handed Signs.

Recording:

Record exactly as told to in 3.02. Score the Checklist entry for 4.03 according to the summary information on the scoring form.

IMITATES ARM AND ELBOW MOVEMENTS 4.04

Procedures:

Administer just as described in Task 3.01. The movements to be used as models are described in Tasks 3.12 and 3.14.

Recording:

Score according to directions in Task 3.01 also, using the scoring form provided on the next page.

ASSESSMENT TASK

4.04 Imitates Arm and Elbow Movements

Student ______________________ Examiner ______________________

Date ______________________

MODEL	RESPONSE DESCRIPTION	SCORE
1. Raises right arm		
2. Raises left arm		
3. Moves right arm to chest		
4. Moves left arm to chest		
5. Moves right arm away from chest		
6. Moves left arm away from chest		
7. Bends right arm		
8. Bends left arm		
9. Straightens right arm		
10. Straightens left arm		

Session Summary

+	S	P	-	0

Use the ranges below to score the Checklist:

All combinations not mentioned below	YES
0 to 1 (+) with 8 to 10 (S) and (P)	MARGINAL
2 (+) with 6 to 8 (S) and (P)	
3 to 5 (+) with 2 to 7 (S) and (P)	
6 to 10 (+)	NO

PHYSICAL VERSUS IMITATIVE SKILLS 4.05

Procedures:

Complete Tasks 3.11, 3.12, 3.14 and Tasks 4.02 and 4.04. If these Checklist entries were scored without an Assessment Task being administered, simply compare the Checklist entries. If the Checklist entries (with or without Assessment Tasks) for 3.11, 3.12 and 3.14 are "NO" there is no need to complete 4.02 or 4.04. This task is only relevant for students who show some physical abilities.

Recording:

Score all Tasks as described in their instruction sections.

Mark the Checklist entry for 4.05 according to the following comparison of scores:

If 3.11, 3.12, and 3.14 were:	with 4.02 and 4.04	Score 4.05 as:
YES	NO	YES
YES	MARGINAL	MARGINAL
MARGINAL	NO	
MARGINAL	MARGINAL	
YES	YES	NO
MARGINAL	YES	

Entries of "NO" for the Section 3 tasks are not shown because is is assumed that the student who is unable to physically make the movement will also be unable to imitate the models. This entry is irrelevant for those students and may be left blank.

Procedures:

This Task is administered just as described in most of the Section 3.1 Tasks. That is, this Task is intended to measure the student's physical abilities not imitation or direction following skills. The 4.11 Assessment items are a summary of those identical movements tested in 3.11, 3.12, 3.14, and 3.14. If these Tasks have previously been administered, the examiner may compare their scores instead of administering 4.11. Refer to those Section 3 Tasks for specific procedures.

Recording:

Use the definitions from the Section 3 Tasks (3.11, 3.12, 3.13 and 3.14).

ASSESSMENT TASK

4.11 Arm and Hand Movements

Student ____________________ Examiner ____________________

Date ____________________

MOVEMENT	RIGHT SIDE		LEFT SIDE	
1. Makes a fist				
2. Spreads fingers				
3. "L" (sign) hand				
4. Bends Elbow				
5. Straightens Elbow				
6. Turns palm down				
7. Bends wrist down				
8. Bends wrist up				
9. Raises Arm				
10. Moves arm across chest				

Session Summary

+	S	P	-	0

Use the ranges below to score the Checklist:

FOR ONE OR BOTH ARMS	All combinations not mentioned below	YES
	0 + 1 (+) with 3 to 10 (S) and (P)	MARGINAL
	2 (+) with 6 to 8 (S) and (P)	
	3 to 5 (+) with 2 to 7 (S) and (P)	
FOR ONE ARM	6 to 10 (+)	
FOR EACH ARM	6 to 10 (+)	NO

Procedures and Recording:

Administer and score this Task just as described in Task 3.34. Use the scoring form from that Task also. The Checklist rating information for 4.13 is provided on the bottom of the scoring form.

Procedures:

1. Using the form provided, list all activities, objects, people, and food the student seems to enjoy or may like.

2. Systematically present each potential reinforcer on three different occasions.

3. Record the student's response to the presentation (introduction) of the stimulus. Such reactions as smiling, looking, cessation of ongoing activity, etc. may indicate a positive reaction.

4. Record also the student's response to the termination of the activity. Behaviors such as whining, reaching, visual searching, increased motor activity, vocalizing, etc. may indicate displeasure or frustration at the interruption of an enjoyed activity.

5. In the far right column of the scoring form check all stimuli which appear to be potential reinforcers.

Recording:

Potential Reinforcers may be indicated if the student in some way shows enjoyment upon presentation of the stimulus or frustration upon termination of the stimulus.

---

* For further information on identifying reinforcers read Klein, M.D., Wulz, S.V., Hall, M.R., Waldo, L.J., Carpenter, S.A., Lathan, D.A., Myers, S.P., Fox, T., and Marshall, A.M. Comprehensive Communication Curriculum Guide. Lawrence, Kansas: Early Childhood Institute Working Paper, 1981 (Identifying Wants and Needs, pages 20-28).

ASSESSMENT TASK

4.21 Reinforcer Identification

Student_________________________ Examiner_________________________

Date____________________________

	List below what the student likes or enjoys.	How does the student respond to the introduction of this?	How does the student respond to the termination of this?	(✓) Potential Reinforcer
Activities				
Objects				
People				
Food				

__________ # of Potential Reinforcers Identified

Score the Checklist as follows:

0 to 2 Reinforcers Identified	YES
3 ro 4 Reinforcers Identified	MARGINAL
5 or more Reinforcers Identified	NO

MOVES HANDS QUICKLY 4.24

Materials: Stopwatch

Procedures:

1. Place the student in a comfortable sitting position with his (here) hands in a rest position.

2. Hold a toy or edible, one foot in front of the student's preferred hand.

3. Say "TOUCH THE (OBJECT)". Begin the stopwatch as soon as the instruction is given, or begin counting slowly (One-one thousand - two-one thousand - etc.

4. Stop the watch (or stop counting) when the student comes in contact with the object or after 15 seconds has elapsed and the student has not touched the object.

5. Reinforce all correct responses.

6. Record the response on the scoring form.

7. Begin the next trial, completing 10 trials.

Recording:

+ : Correct. Within 3 seconds after the instruction, the student's hand touched the toy.

P : Prompted. Student responded as described above only following some help from the examiner.

S : Partial. Student touched the toy after 3 seconds but before 15 seconds.

- : Incorrect. Student was unable to come in contact with the toy after 15 seconds.

0 : No response. Student made no attempt to touch the toy.

ASSESSMENT TASK

4.24 Moves Hands Quickly

Student________________________ Examiner________________________

Date________________________

RESPONSES ON THE RIGHT			RESPONSES ON THE LEFT		
	RESPONSE DESCRIPTION	SCORE		RESPONSE DESCRIPTION	SCORE
1.			1.		
2.			2.		
3.			3.		
4.			4.		
5.			5.		
6.			6.		
7.			7.		
8.			8.		
9.			9.		
10.			10.		

Session Summary

+	P	S	-	0

Score the Checklist as follows:

WITH AT LEAST ONE HAND	All combinations not mentioned below	YES
	0 to 1 (+) with 3 to 10 (S) and (P)	MARGINAL
	2 (+) with 6 to 8 (S) and (P)	
	3 to 5 (+) with 2 to 7 (S) and (P)	
	6 to 10 (+)	NO

MATCHES OBJECT TO OBJECT 4.31

Prerequisite Skills: Identifying response

Materials: Two identical sets of 10 objects.

Procedures:

Select any 10 objects the student sees or uses daily that are small enough to use on a training table. Write one object label beside each number (one through ten) of the scoring form.

1. Place three different objects on the table in front of the student. Use the order shown on the scoring form, placing the object to be used in that trial in the "X" position. For example, on trial six, place the objects from the student's left to right, ball/brush/hat. Then show the ball to be matched. Direct the student to watch as you place each object. Visually handicapped students should be allowed to handle all objects before each trial.

2. Establish attending.

3. Hold up the identical object to be matched as indicated by the scoring form and say "SHOW ME THE SAME". Be careful to consistently hold the objects to be matched in relatively the same position from one trial to the next. Also be careful not to influence the student by looking at the item in front of the student which matches the model. Often the student will closely watch an examiner's eyes for such cues.

4. Allow the student time to respond. Reinforce correct responses.

5. Record and score the response.

6. Remove the objects from in front of the student.

7. Begin the next trial, being careful to use different non-matching objects from trial to trial.

Recording:

+ : Correct. Student pointed to the matching item, or gave the matching item to the examiner, or placed the modeled item beside the matching item.

- : Incorrect. Student pointed to a non-matching item, or gave a non-matching item to the examiner, or labeled a non-matching item, or placed modeled item beside a non-matching item, or echoed the instruction.

0 : No response. Student made no attempt to match the items in 10 seconds.

ASSESSMENT TASK

4.31 Matches Objects

Student ______________________ Examiner ______________________

Date ______________________

	OBJECT	POSITION	SCORE
1.		-- -- X	
2		-- X --	
3.		X -- --	
4.		-- -- X	
5.		-- X --	
6.		-- X --	
7.		X -- --	
8.		-- X --	
9.		X -- --	
10.		-- -- X	

Session Summary

+	-	0

Score the Checklist as follows:

2 to 0 (+)	YES
3 to 5 (+)	MARGINAL
6 to 10 (+)	NO

UNDERSTANDS TURN-TAKING 4.32

Procedures and Recording:

Administer and score this Task exactly as described in 4.01. Use the scoring form provided in 4.01 also.

OBJECT FUNCTION 4.33

Materials: brush/comb, book, crayon/pencil, spoon, cup, food, drink

Procedures:

This Assessment Task should only be administered in cases where the parents/caregivers are not sure if their child uses objects correctly or simply allows others to use them for him/her. Usually this Checklist entry can be quickly answered without the Assessment Task if the student is observed in eating or play situations. If such observation is not possible, then administer the Assessment Task.

This Task is especially appropriate for students who exhibit such an involved physical handicap that handling or using objects is difficult or impossible.

For physically able students:

1. Hand the objects one at a time to the student. Put food in the eating utensil, and liquid in the cup. Say nothing.
2. Observe what the student does with the object.
3. If the student uses the object correctly, reinforce and record the response.
4. If the student uses the object inappropriately, say nothing, score the trial and go on to the next object.
5. If the student makes no response to the object, prompt by giving some verbal or physical cue. Record any response to this cue then continue to the next object.

For physically handicapped students:

1. Place 3 of the objects on the table or lap tray in full view of the student. Place the object to be tested in that trial in the "X" position (see scoring form) relative to the other objects. Be careful to place the objects within the student's pointing, touching, or visual range (depending on how the student will identify the object).
2. Say "Show me the one you..." or "Look at the one you...". The instruction given depends on what kind of response the student is able to use.
3. Reinforce correct responses. There are no prompted responses for physically handicapped students in this Task.
4. Record the response.
5. Rearrange the objects and begin the next trial.

NOTE: The task involved for the physically handicapped students is a higher order cognitive and language skill than that for the physically able students. However, the task may give some information about this skill for the physically involved student.

Recording:

+ : Correct. Student used the object appropriately in some way (physically handicapped indicated requested object).

P : Prompted. Student required an addition (verbal or physical) cue to complete the response. (This score is not used for the physically handicapped.)

- : Incorrect. Student used the object inappropriately, or said the object's name, or pointed to the object, or resisted a prompt. (Physically handicapped indicated an incorrect object.)

0 : No response. Student made no attempts to use (or indicate) the object.

ASSESSMENT TASK

4.33 Object Function

Student ______________________ Examiner ______________________

Date ______________________

(Instructions for Physically Handicapped only)

EXAMINER SAYS "Show me the one you...	POSITION	OBJECT/FUNCTION	SCORE
1. "brush your hair with."	-- X --	Brushes/Combs hair	____
2. "see pictures in."	X -- --	Looks at book/ Turns book pages	____
3. "draw with."	-- -- X	Marks with crayon/ pencil	____
4. "eat with."	-- X --	Spoon/Fork to mouth	____
5. "drink from."	-- -- X	Cup to mouth	____
6. "draw with."	X -- --	Marks with crayon/ pencil	____
7. "eat with."	-- X --	Spoon/Fork to mouth	____
8. "see pictures in."	X -- --	Looks at book/ Turns book pages	____
9. "drink from."	-- -- X	Cup to mouth	____
10. "brush your hair with."	X -- --	Brushes/Combs hair	____

Session Summary

+	P	-	0

Score Checklist as:

0 to 2 (+)	YES
All other combinations	MARGINAL
6 to 10 (+)	NO

PART 3: COMMUNICATION BOARD SYSTEM PLANNING

PART 3

COMMUNICATION BOARD SYSTEM PLANNING

Administration

Purposes:

One of the primary assessment goals for a board candidate involves matching the student's motor and language skills, and the environmental restraints to a particular board system. For most students this is no easy task. There are at least six major areas of concern which must be addressed during this planning phase.

1. What motor or visual response will the student use to select the elements of the message on the board?
2. How will the board be displayed so that the student can use the response to indicate the message?
3. What symbol system will the student use?
4. What vocabulary will be taught?
5. In what order will the vocabulary symbols be placed on the board?
6. How will the board be made?

The information in this Part is not relevant unless the TCCA (or some other Assessment) has already indicated that a board is the most preferred mode for this student. The information presented in this Part is intended only as a set of guidelines and is not exhaustive. References are sited throughout the instructions which provide more specific information. Additionally, information and feedback should be obtained from the parents, speech pathologist, and occupational therapist whenever possible.

It is not within the scope of the TCCA to discuss electronic boards in detail. Two sources which should assist you further are listed at the end of Part 3. The planning sheet should offer assistance in selecting a possible activation response for certain types of switch. It will also be helpful in selecting the symbol system and vocabulary to be used on the electronic board. It will not, however, assist in the process of selecting a specific electronic device. Electronic boards generally require skills in localizing and tracking visual stimuli, matching and arranging sequences of lights or word order, and categorizing letters, numbers, colors, or other labels. Many of these skills involve fairly good memory. It is strongly recommended that a device not be selected unless during assessment your student is able to exhibit most of the cognitive (memory, scanning, matching, sequencing) and motor (switch or signal activating response) skills necessary to operate the device. If this is not the case, so much time will likely be spent in teaching the mechanics and logistics of the device that there is no time for communication training.

Components and Administration

The Planning Sheet has six sections. Each section addresses one of the major decisions in the planning process. The sections are titled.

Decision I: Response

Decision II: Board Display

Decision III: Symbol System

Decision IV: Vocabulary Selection

Decision V: Vocabulary Display

Decision VI: Board Construction

Assessment Tasks, similar to those provided in the previous Section, accompany the Planning Sheet. Both the Planning Sheet and the Assessment Tasks are working tools. Study the information needed on the Planning Sheet, complete what information you can from prior knowledge of the student or from the TCCA Checklist, then decide what information must be further gained from direct testing. Once the needed Assessment Tasks are completed, summary scores are transferred to the Planning Sheet. The examiner should then have most of the information necessary to design a functional board for the student.

Instructions for Decision I: Response Assessment Tasks

This first decision involves viewing the student's physical handicaps and abilities in order to identify an effective way for him/her to indicate the elements (symbols) of the messages. It is recommended that all potential extremities, trunk and/or eye movements be analyzed to allow comparison to the components of the response.

Many students' responses may be facilitated by position, angle, or elevation changes. By changing these variables and thus realigning the arm or hand, the student is often able to exhibit more purposeful pointing. Some may need help in arresting jerky or continuous motions. For these students, providing handles to grasp or grooves or slots to rest their arm in may give the control they need. Weighted wrist cuffs or saddle bags may also help. The more controlled the student's movements, the more response choices the student can be given on his board or penel.

Additional information about responses for severely physically handicapped students may be found in the Barnes, Murphy, Waldo and Sailor chapter listed in the reference section of this appendix. This chapter provides specific information on positioning and fine motor movements as well as movements for board responses.

Materials

Each Assessment completed in this section measures the range of motion of the extremity being tested. To do so, a "pointing board" is used in each task.

The pointing board is an illustration board (or sheet of paper) divided by drawn lines into 10 areas. The overall size of the board, and the size of the 10 divisions will vary depending on what movement is being tested and how restricted the student's movements are. Each division on the board is assigned a number.

NOTE: The number of divisions assigned may vary also depending on the student's handicap. Assign as many divisions as possible to most accurately measure the range of the movement.

The only other material needed during the testing is a stop watch or watch with a second hand or second readout.

Data Collection

Page 115 presents the scoring form used with all the Decision I Assessment Tasks. Data collection during this testing is quite extensive. Measures of seven variables are made each trial. When all possible responses for a particular child have been tested, the data should be summarized onto the Planning Sheet for comparison.

Range. Before administering the Assessment Task, design and construct a pointing board suitable to the student being tested and the response being measured. After assigning each area of the pointing board a number, write one number in each blank of "Range" Column on the scoring form. Range will be measured by noting how many of the responses to each area of the board were completed.

Imitation. All Assessment Tasks are adminstered using an imitative model. Responses are scored for this variable as follows:

+ : Correct. The student imitated the movement perfectly with no assistance, or further prompting needed.

0 : Incorrect. Student was unable to imitate, imitated only part of the movement, responded with a non-imitative movement, did not respond, or responded only after receiving additional assistance.

Completion. If the student is unable to or does not imitate the movement the examiner may use any means available to prompt the student to respond. Responses are recorded as described below:

+ : Correct. Student was able to independently complete the movement after having received prompts (physical assistance, verbal cues, etc.) or after using a "functional task" to elicit the movement.

0 : Incorrect. Student was unable to independently complete the response, regardless of the prompting or task employed.

Fatigue. A movement will not be functional to the student if it tires him/her quickly. Therefore, some judgement must be made regarding how fatiguing the response was. This variable is scored only if a response is completed or imitated.

+ : Present. This score indicates that the examiner felt that the amount of concentration and/or excursion necessary to complete the response would be too fatiguing for the student to use repeatedly; or that the student showed indications of being tired during or just after the response.

0 : Absent. This score indicates that the examiner saw no signs of the movement causing fatigue.

Speed. Measure the amount of time, in seconds, the student required from the beginning to the completion of the response. Timing starts when the student begins to move and ends when contact is made with the appropriate section of the pointing board. This measure is only recorded for imitated or completed responses.

Stability. This variable measures the student's ability to maintain the completed response for a few seconds.

+ : Stable. Student held the response in its completed form for at least 2 full seconds.

0 : Incorrect. Student was unable to maintain the response for 2 seconds (tremors, bouncing, etc.).

Procedures

1. Construct and assign division numbers to a pointing board appropriate to the student and response.
2. If necessary, spend a few minutes prior to testing familiarizing the student with the movement.
3. Position the student in an upright sitting position. If a chair is used, it is important no restrictions (pads, straps, etc.) hinder the extremity being tested.
4. Model the movement to be tested.
5. Observe to see if the student imitates the movement.
6. Time the response completion speech.
7. If the response was imitated, time its stability.
8. If the response was not imitated, prompt it if possible.
9. If the response was imitated (+) or completed (+); record the fatigue, speed and stability scores. If the response was neither imitated (0) nor completed (0), fatigue, speech, and stability scores can not be recorded.
10. Reinforce correctly imitated and completed responses. Reinforce also those responses which the student obviously attempted but was unable to complete.
11. Begin the next trial completing 10 trials. In order to allow reliable comparisons between responses and valid measures of range, fatigue, consistency, and control, it is important to complete at least 10 trials per movement.
12. Tally all scores onto the SESSION SUMMARY for each movement then transfer the data onto the Planning Sheet for later comparison.

The movements which may be tested are listed in Table 5

Table 5 : Movements for Board Responses

EXTREMITY	MOVEMENT	POSSIBLE USES
Arm or Hand	Bends/Straightnes Elbow Raises/Lowers Arm Arm Across Chest/Returns Hand Pointing Elbow Pointing	Pointing, Coding; switches; button pressing; typing.
Head	Leans head to Left/Right Leans head Forward/Backward Turns head to Left/Right Stylus Pointing	Coding Yes/No; button pressing, and some switches. Stylus may be use for direct selection of symbols or codes.
Mouth	Tongue and Lip Movements Open/Close Jaw Open/Close Lips	Switches; coding Yes/No responses.
Trunk	Leaning Trunk to Left/ Right Leaning Trunk Forward/ Backward Pressing with Shoulder (by turning trunk)	Coding Yes/No; switches; button pressing.
Legs	Lift Legs at Hip Spread Legs at Knees Press Knees Together Straighten/Bends Knees	Coding Yes/No; switches; button pressing.
Feet or Toes	Moves Foot Left/Right Raises Foot at Ankle Foot Pointing Moves Toes	Pointing; coding; switches; pressing; typing.

Remember that all responses may be tested with and without adaptive equipment such as wieghts, styluses, etc. always not on the scoring form whether an aid was used. Also note under "Movement Tested" which hand, leg, etc., was tested (i.e., right or left).

Another response which should be assessed in this section is eye gaze. This response may be tested using the same general procedures described earlier. The same variables are measured and recorded on the scoring form. The only difference is the placement of the "pointing" board and the definition of the completed response. The board may be held in a variety of positions with the most common being at right angles to the lap tray, directly in front of the student.

TCCA
Board Planning

ASSESSMENT TASK

Movement Tested ______________________________

Student ______________________ Examiner ______________________

Date ______________________

	Range	Imitation	Completion	Fatigue	Speed	Stability
1.	________	+ 0	+ 0	+ 0	___"	___"
2.	________	+ 0	+ 0	+ 0	___"	___"
3.	________	+ 0	+ 0	+ 0	___"	___"
4.	________	+ 0	+ 0	+ 0	___"	___"
5.	________	+ 0	+ 0	+ 0	___"	___"
6.	________	+ 0	+ 0	+ 0	___"	___"
7.	________	+ 0	+ 0	+ 0	___"	___"
8.	________	+ 0	+ 0	+ 0	___"	___"
9.	________	+ 0	+ 0	+ 0	___"	___"
10.	________	+ 0	+ 0	+ 0	___"	___"

Session Summary

Imitation	Percent of (+) trials	_____%
Fatigue	Percent of (+) trials	_____%
Speed	Mean Time[1]	_____ seconds
Stability	Mean Time[1]	_____ seconds
Consistency	Percent of trials equal in completion, speed, and stability scores.	_____%
Range	Dimensions within which responses were completed.	_____inches by _____inches
Control	Dimensions within which responses were completed with most speed, stability, and least amount of fatigue	_____inches by _____inches

---

[1] Mean equals total of all trials' times divided by 10.

Instructions for Decision II: Board Display Assessment Tasks

There are as many possible board displays as there are students. These displays can be very simple or very complex depending on the response selected for the student and his/her cognitive skills. Figure 4 shows a few displays that may be appropriate for a severely multiply handicapped student. Usually some combination of one or two of these displays is used in order to meet the skill level of a particular physically handicapped student.

Three examples of Direct Selection boards which require a pointing response are shown. The student may point to the symbols on the board with whatever response they use, i.e., pointing with a hand, foot, or stylus. The Sample 1 board is an initial board used by a student in the Requesting Through Board objective. The Sample 2 and 3 boards were used by two students who had expanded vocabularies. There are no "rules" about where on a direct selection board the symbol cards are placed.

Two example Direct Selection eye gaze boards are shown. Notice that the Sample 5 board has a total of eight symbols displayed. This number and their placement are the maximum recommended for this type of board. With up to eight symbols on the plexiglass, the looking, or eye gaze response can be very reliable.

Because the Row/Column and Successive Quartering boards are so complicated to explain only one example of each is provided. However, the particular coding system used with either of these boards may be individualized and therefore different for each student. Generally, however, both of these types of coded boards require memory, sequencing, and matching skills beyond those required for a Direct Selection Board.

If the student is able to use only one very restricted movement or signal such as an eye blink or finger tap there are still possibilities for a board system. These students may be candidates for a scanning board (not shown in Figure). Vanderheiden and Grilly (1975) explain a scanning system in this way.

> "... a technique is considered to be a scanning technique if the items in the child's vocabulary are presented to him one at a time so that he can let you know when the item he wants is presented... (An) example of a simple scanning technique would be the use of a communication board with a second person pointing to the pictures, words, or letters one at a time while watching for a response from the child... If you can recognize a child's affirmative signal of any form, you can use any of the non-mechanical techniques, no matter how severe the child's physical handicaps." (pages 21 and 22).

One prerequisite cognitive skill for the use of a scanning board is the affirmation function of "yes". If the student does not exhibit this function of "yes" a scanning board will not work.

For a more detailed discussion of board displays read the Vanderheiden and Grilly reference sited in the references.

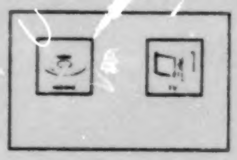
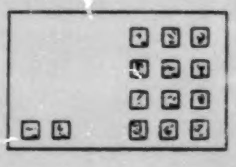
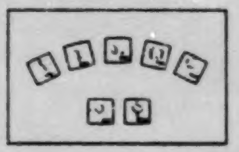
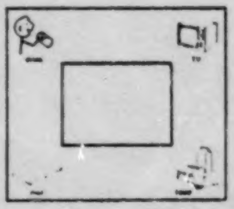
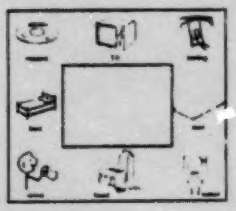
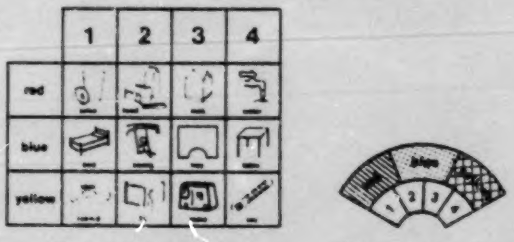
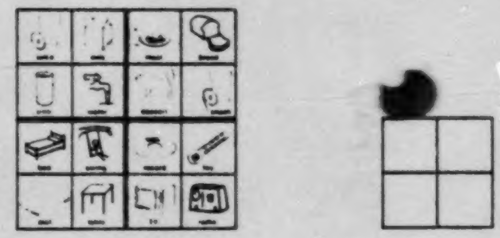
Student points in some way directly to the symbols.	DIRECT SELECTION (Pointing)  Sample 1  Sample 2  Sample 3
Student looks at the desired symbol which is placed on a "donut" of plexiglass, standing or attatched vertically to a lap tray.	DIRECT SELECTION (Eye gaze)  Sample 4  Sample 5
Student points to or looks at colors and/or numbers on a response panel to tell the observer which symbol to attend to on the board. If the student pointed to "blue" and then "2" on the response panel, he is trying to communicate that he wants the swing.	ROW COLUMN  1 2 3 4 red blue yellow blue 1 2 3 4 Board Response Panel Sample 6
Student points twice to areas on the response panel to indicate which of the 16 symbols is desired. The first point to the panel tells which of the 4 main qudrants has the symbol. The second point tells which symbol within that quadrant is needed. If the student pointed to the upper right and then the lower left of the panel, he wants dessert.	SUCCESSIVE QUARTERING  Board Response Panel Sample 7

Figure 4: Sample Board Displays.

Very generally, there are certain prerequisite skills that are advantageous for the student to exhibit for each type of board. These are skills necessary to use the board's system, not its symbols. These are:

Board Display	Prerequisites
Direct Selection	Pointing/Eye Gaze Sequencing (long range)
Row Column	Coding Response Sequencing Color/Number Matching Yes/No (Possibly)
Successive Quartering	Coding Response Sequencing Color/Number Matching Yes/No (Possibly)
Scanning	Yes/No Coded Response Visual Tracking Yes/No Concepts

The possible responses used by the student were identified in the earlier section of the Planning. This section includes assessment tasks to measure the remaining prerequisite skills listed above. Pointing and eye gaze are measured simply to determine if the student has adequate control to point or gaze descriminately at, at least, 8 areas on the board.

Pointing

Materials. This task uses a pointing board (about 18" X 14") like that described under Decision I testing. Divide this pointing board into at least eight areas. Number each area one through eight.

Procedures. This task may be administered using any type of pointing or eye gaze response including head stylus, foot, etc.

1. The student should be seated with the board placed within easy reach or view of his/her least impaired hand depending on what response is used.
2. Say "Do this" or "Point here" or "Look here". Then point to or look at the rectangle designated on the scoring form for that trial.
3. Begin the stopwatch as the instruction is completed.
4. Allow 20" for the student to complete the response. (This extreme response latency is to allow for the responding of physically handicapped students.) Stop the watch whenever the student completes a pointing response whether correct or incorrect.

5. Reinforce the student for all correct responses.

6. Record the response and the time it took to complete the point. Use the column corresponding with which hand the student used to point.

7. Begin the next trial.

If the student is not imitative, any other method which elicits pointing may be used to measure the responses. Some suggestions would be placing desired objects in the required rectangle for the student to reach for, or making the task a tapping game, etc.

Recording. Each time the student is asked to point, a trial should be timed and recorded on the scoring form. Any trial may be recorded as:

+ : Correct. Student pointed or gazed within the lines of the modeled rectangle within at least 20".

S : Shaped. Student pointed or looked closer to the correct rectangle than in previous trials, or student indicated the correct rectangle just after 20".

P : Prompted. Student required visual prompt to complete the response, or student required a physical prompt to complete the response.

- : Incorrect. Student responded to a rectangle other than the one modeled, or student pointed on a line.

0 : No Response. Student made no attempt to imitate the model or respond to a prompt.

Sequencing

Materials. This task uses a pointing board identical to the one used for the previous pointing task.

Procedures. All procedures for this Task are identical to those provided for Pointing except that the examiner points to more than one rectangle for the student to imitate. The examiner should be sure the student does not begin imitating the response until the sequence has been completely modeled.

Recording. These responses are also scored as defined for the pointing task except that the student must indicate all the modeled squares in order of the model, and no timing of the response is necessary.

ASSESSMENT TASK

Pointing

Student______________________________ Examiner____________________________________

Date ________________________________

Rectangle	Right	Time	Left	Time	Rectangle	Right	Time	Left	Time
1. 1	______	( )	______	( )	9. 4	______	( )	_____	( )
2. 5	______	( )	______	( )	10. 7	______	( )	_____	( )
3. 7	______	( )	______	( )	11. 5	______	( )	_____	( )
4. 2	______	( )	______	( )	12. 2	______	( )	_____	( )
5. 4	______	( )	______	( )	13. 1	______	( )	_____	( )
6. 6	______	( )	______	( )	14. 6	______	( )	_____	( )
7. 3	______	( )	______	( )	15. 8	______	( )	_____	( )
8. 8	______	( )	______	( )	16. 3	______	( )	_____	( )

Session Summary

+	P	S	-	0

TCCA
Board Planning

ASSESSMENT TASK

Sequencing

Student ______________________ Examiner ______________________

Date ______________________

POINTING SEQUENCE SHOWN	RESPONSE DESCRIPTION	SCORE	POINTING SEQUENCE SHOWN	RESPONSE DESCRIPTION	SCORE
1. 2--4			11. 5--3		
2. 4-7-5			12. 6--7		
3. 2--6			13. 1-2-7		
4. 1-3-4			14. 4-3-2		
5. 3-6-4			15. 6-7-8		
6. 7-2-3			16. 7--1		
7. 3--5			17. 1--8		
8. 6--4			18. 5--8		
9. 5-[illegible]-8			19. 2-6-4		
10. 1--3			20. 8--6		

Session Summary

+	P	S	-	O

"Yes"/"No"

Materials. Ball, shoe (or any two objects the student knows), and any edible.

Procedures. Select any two objects the student is familiar with (i.e., can name, and can point to if the examiner names it).

Certain questions on this Task require a particular set of circumstances when asking the question.

#1. "Is this a ball?" - Show the student a ball. If other objects are used, match the object shown to the object in the question.

#2. "Am I sitting?" - Be sure you (the examiner) are sitting.

#5. "Are you eating?" - The student should not be eating.

#7. "Am I sitting?" - Be sure to stand.

#8. "Is this a ball?" - Show the student a shoe. If other objects are used, show a different object than the one labeled in the question.

#9. "Are you eating?" - Before asking the question, give the student something to eat.

The Assessment Task is administered as follows:

1. Set up the circumstances needed for the question.
2. Ask the question clearly with normal loudness and inflection. Avoid repetition of the question.
3. Allow the student adequate time to answer.
4. Reinforce, and record as instructed before.
5. Begin the next trial.

Recording.

+ : Correct. Student indicated by some method a correct "yes" or "no" answer. He/She may gesture, shake or nod his/her head, talk, sign, or use a communication board, eye blinks, or some other predetermined signal.

P : Prompted. Student answered as described above only after being given an added cue (repeated question, gesture, intonation changes, etc.).

S : Partial. Student's answer was not clearly articulated (i.e., some of the speech was sloppy, or some of sign was sloppy, etc.).

- : Incorrect. Student gave an irrelevant answer, or repeated a previous answer, or echoed the question, or gave an answer no one understood.

ASSESSMENT TASK

Yes/No

Student ____________________ Examiner ____________________

Date ____________________

	ANSWER	RESPONSE DESCRIPTION	SCORE
1. IS THIS A BALL? (ball)	"yes"		
2. ARE YOU A GIRL/BOY?	"no"		
3. AM I SITTING? (sit)	"yes"		
4. DO DOORS WALK?	"no"		
5. ARE YOU EATING? (not eating)	"no"		
6. DO DOORS OPEN?	"yes"		
7. AM I SITTING? (stand)	"no"		
8. IS THIS A BALL? (shoe)	"no"		
9. ARE YOU EATING? (eating)	"yes"		
10. ARE YOU A BOY/GIRL?	"yes"		

Session Summary

+	P	S	-	0

0 : No Response. Student made no attempt to answer the question after 10 seconds.

Visual Tracking

Materials. Any materials which are novel, and/or interesting to the student may be used in the Task. Use a variety of different objects to hold the student's attention. If an electronic board with scanning lights or hands is being considered use this during the test.

Procedures. The scoring form describes activities with ten objects. Any 10 objects may be used which are fairly large and motivating to the student.

1. The student and examiner should be seated on the floor or at a table.
2. Wait until the student is quiet. Direct him/her to be still if necessary.
3. Perform the activity as described on the data sheet. Verbal directions such as "look at the cookie" may be given to the child as each object is presented.
4. Observe and record the student's response.
5. Reinforce correct responses by allowing the student to eat or play with the object before the next trial.

Recording. Each time the examiner goes through the motions described on the data sheet, a trial should be recorded. Responses are recorded as follows:

+ : Correct. Student visually followed the entire movement.

S : Partial Response. Student followed only part of the movement.

0 : No Response. Student did not attend to the examiner.

NOTE: This Assessment Task remains almost identical to the one written by Campbell.

Color Matching

Materials. Make two 4" by 4" cards for each of the colors to be tested. It is recommended that at least five colors be tested. This will allow several choices for the board and response panel should this type code be used.

Procedures. Write one color label beside each number (one through ten) of the scoring form.

1. Place three different color cards on the table in front of the student. Use the order shown on the "Matching" scoring form, placing the color to be used in that trial in the "X" position. For example, on trial six, place the cards from the student's left to right, blue/red/yellow. Then show the blue card to be matched. Direct the student to watch as you place each card.

2. Establish attending.

3. Hold up the identical color card to be matched as indicated by the scoring form and say "SHOW ME THE SAME". Be careful to consistently hold the objects to be matched in relatively the same position from one trial to the next. Also be careful not to influence the student by looking at the card in front of the student which matches the model. Often the student will closely watch an examiner's eyes for such cues.

4. Allow the student time to respond. Reinforce correct responses.

5. Record the score for the response.

6. Remove the cards from in front of the student.

7. Begin the next trial, being careful to use different non-matching cards from trial to trial.

Recording. Each time the student is asked to match a card, a trial should be recorded on the scoring form.

+ : Correct. Student pointed to the matching item, or gave the matching item to the examiner, or placed the modeled item beside the matching item.

- : Incorrect. Student pointed to a non-matching item, or gave a non-matching item to the examiner, or labeled a non-matching item, or placed modeled item beside a non-matching ite, or echoed the instruction.

0 : No Response. Student made no attempt to match the item.

Number Matching

Materials. Make two 4" by 4" cards for each of the numbers to be tested. It is recommended that the numbers 1 through 5 be tested.

Procedures. All procedures are identical for this Task as those used in the color matching Task except the number cards are used.

Recording. Recording is identical to that described for color matching. Use the "Matching" scoring form to record the data.

Quadrant Matching

Materials. Make one 14" X 14" board, and one 6" X 6" board. Divide each board into equal fourths using one vertical line and one horizontal line. These sizes may vary according to the student's response.

Procedures. Procedures are identical to those described in the color matching Task except that the student is given the smaller of the two boards on which to "match" and the examiner points to a quadrant on the larger board to "model".

ASSESSMENT TASK

Matching

Student ______________________ Examiner ______________________

Date ______________________

	ITEM	POSITION	SCORE
1.		-- X --	
2.		X -- --	
3.		-- -- X	
4.		-- X --	
5.		-- -- X	
6.		X -- --	
7.		-- X --	
8.		X -- --	
9.		-- -- X	
10.		X -- --	

Session Summary

+	-	0

Instructions for Decision III: Symbol System Assessment Tasks

Figure 5 gives a comparative example of the abstractness of the different symbol systems which may be used on a board. Sources which provide glossaries of Peabody Rebus and Blissymbolic symbols are listed in the references of this section. There are no standard models, photographs, live drawings, or tactile symbols from which to choose. The examiner will need to design these symbols.

Tactile stimuli and models are gnerally only used for severely visually handicapped students.

Avoice color in the photographed or drawn symbols. First, this added cue may interfere with generalization. For example, if the symbol for coat is colored to exactly match the student's coat, the response may not generalize to a new coat. Also, coloring the symbols is quite time consuming and may inhibit replacing damaged or lost boards or sending boards home.

The Assessment Tasks provided in this section are probes to measure the student's matching skills across the symbol systems. It will generally not be necessary to use the Tasks with each of the available systems. However, comparing these 3 Tasks across at least 2 or 3 different systems will provide the examiner with realistic view of the student's abilities to quickly use these symbols communicatively.

NOTE: Throughout this section the term "symbol" is used to indicate one of the eight systems shown in the Figure. Spoken words are obviously also "symbols" but are separated from the others for purposes of this testing.

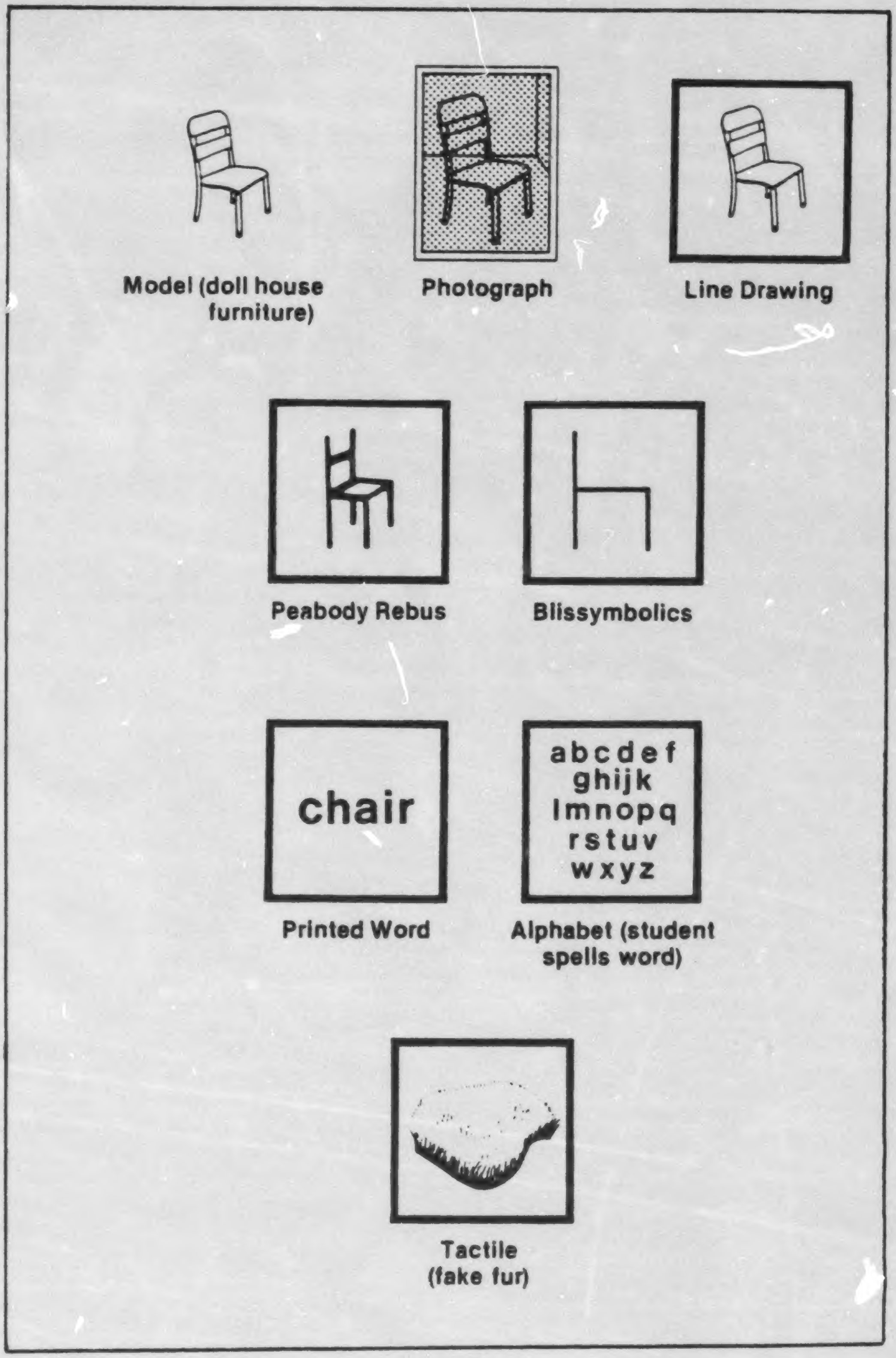
Matching Object to Symbol

Materials. One set of 5 to 10 objects which are familiar to the student and which can be symbolized in all systems to be tested. The objects to be used in this Task should be identical to those used in the following two Tasks. Additionally, the objects used to test one system (e.g., line drawings) should be the same as those used to test the other system(s) (e.g., Blissymbolics). The scores can only be compared when the objects remain constant from one Task to the next and from one system to the next.

One set of symbols representing the objects to be tested will also be needed. Make sure that the symbols are placed on cards which the student can easily point to or otherwise indicate.

Procedures. All instructions for this Task are identical to those given for color matching in the previous section except that 3 symbol cards are placed on the table. The examiner holds the object for the student to see and subsequently match to the card. Complete at least 10 trials per symbol system for each Task.

Recording. All responses are defined as for color matching. Use the Matching scoring form to record the data.



Model (doll house furniture)

Photograph

Line Drawing

Peabody Rebus

Blissymbolics

Printed Word

Alphabet (student spells word)

Tactile (fake fur)

Figure 5: "Chair" symbolized with several systems available for communication boards.

Matching Symbol to Symbol

This Task is administered like the previous Task except that no objects are used. The materials include two cards of each symbol tested, one for the examiner to use as the model, and one for the display from which the student chooses. For example, the Peabody Rebus symbols for coat, shoe, and milk are placed on the table in front of the student. The examiner then holds up the second Peabody Rebus card for shoe.

Matching Spoken Word to Symbol

This Task is also similar to the previous Tasks. Three symbols are placed on the table, as in the example above. However, instead of showing the student another object or symbol, the examiner says "SHOW ME SHOE".

NOTE: There are no Assessment Tasks needed for DECISION IV: Vocabulary Selection. Refer to the Planning Sheet for the information needed in this decision.

Instructions for Decision V: Vocabulary Display Assessment Tasks

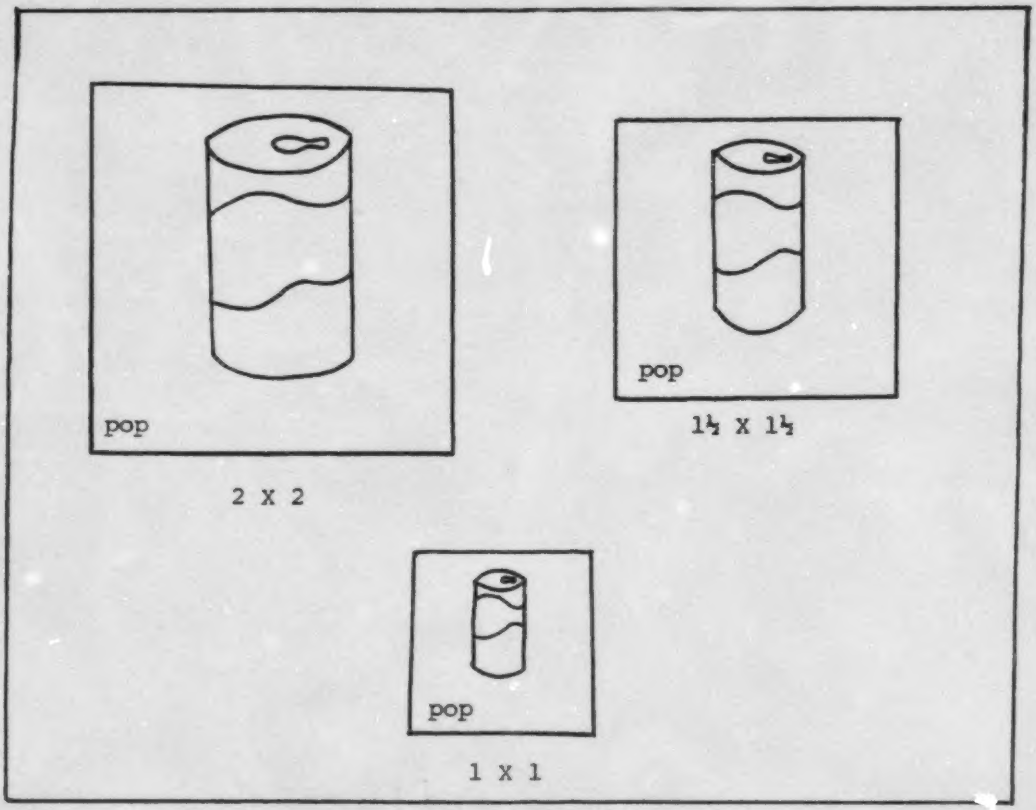
This decision in the planning process coordinates all of the planning completed to this point. In view of the student's selection responses, board display and vocabulary, the decision is now made about where to specifically attach each symbol to the board and, if a direct selection board is used, the size of the symbol card must also be determined. The symbol placement is an arbitrary decision. The card size is determined by the student's visual and physical skills.

Card Size

Materials. This Task is administered using at least 3 objects which the student can match to a symbol of the type to be used on the board. If the student was unable to match any objects to any symbols, the Task may be completed using blank cards. Object symbol matching is used to determine if the student's visual skills require the use of larger symbols than his/her motor skills would indicate.

Several cards of different sizes representing each object will be needed. The Task will be administered to determine the smallest possible card the student can reliably point to and visually discriminate. Figure 6 shows an example of one hand drawn symbol used in this Task.

Figure 6: Example symbols used to compare pointing and visual skills



Notice that both the card size and the size of the symbol itself decrease.

Procedures. This Assessment Task is administered much like the earlier Matching Tasks.

1. Before beginning the Assessment judge waht size of card the student will most likely be able to use. Make this set of cards. Write the card size under the "CARD SIZE A" column of the scoring form.

2. If the student was able to match objects to symbols, write object names beside each number of the scoring form.

3. Using the order shown on the scoring form, place the cards on the table in front of the student.

4. Hold up the object to be matched for that trial. Say "SHOE ME SAME". If no objects are used, model the response by pointing to the card and saying "DO THIS" or "POINT HERE".

5. Allow the student time to respond, reinforcing all correct responses.

6. Record the response.

7. Rearrange the cards and begin the next trial.

8. Complete 10 trials using one size cards.

9. If 9 or 10 of the responses were correct, make a set of smaller cards and readminister the Task. If 6 or less of the responses were correct, increase the card size and readministered the Task. The Task need not be administered if 7 or 8 responses were correct.

Recording. Each time the student is asked to match or point to a card, a trial should be recorded on the scoring form.

+ : Correct. Student pointed within the are of the correct card without touching outside the card first and without placing any of his/her hand (if hand or fingers are used in the response) outside the card during the point.

- : Incorrect. Student pointed outside the card.

0 : No Response. Student made no attempt to point.

NOTE: There are no Assessment Tasks needed for DECISION VI Board Construction. Refer to the Planning Sheet for the information needed in this decision.

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Board Planning

ASSESSMENT TASK

Card Size

Student ____________________ Examiner ____________________

Date ____________________

		CARD SIZE A	CARD SIZE B	CARD SIZE C
		______	______	______
ITEM	POSITION	SCORE	SCORE	SCORE
1. ________	-- X --	____	____	____
2. ________	X -- --	____	____	____
3. ________	-- -- X	____	____	____
4. ________	-- X --	____	____	____
5. ________	-- -- X	____	____	____
6. ________	X -- --	____	____	____
7. ________	-- X --	____	____	____
8. ________	X -- --	____	____	____
9. ________	-- -- X	____	____	____
10. ________	X -- --	____	____	____

Session Summary

+	-	0

INTERPRETATION

The Planning Sheet is designed to assist in interpretation of the Assessment Task and Planning Sheet information. This section will discuss how to use the information on the Planning sheet and offer a few general guidelines not included on the Planning sheet.

Decision I: Response

All responses tested should now be compared across the variables listed on the Planning Sheet. Table 6 identifies the variables of a "perfect" response. No response will meet these "ideal" standards. The examiner must study the scores and decide which response is closest to this ideal.

Decision II: Board Display

The board display selected for any particular student will depend largely on the response selected in the first decision. Generally, however, students should exhibit some expertise in the prerequisite skills listed on the Planning Sheet before any particular display is considered. If the student lacks the basic cognitive skills necessary to use the board itself, long term response training may be necessary before any functional communication training can occur. Care should be taken to select an initial board display which is simple enough for the student to use functionally with as little training as possible.

Decision III: Symbol System

The following guidelines are presented to aid in the symbol selection decision once the probes are completed.

If the student is unable to match in any of these tasks, use the simplest symbols possible to begin training, usually line drawings.

Peabody Rebus or original line drawings are suggested as the most appropriate symbols for most severely handicapped students. These systems are very easy to reproduce and can be standardized from student to student. Additionally, as the student's vocabulary increases, these may be easily reduced in size to accomodate new symbols on the board.

Combing more than one symbol system is encouraged. Do whatever can be done to facilitate the most function and largest vocabulary possible.

Always type or write the written word for the symbol plainly on the card. This allows a "listener" unfamiliar with the symbols an opportunity to understand the message.

Table 6 : Ideal Response Parameters

Variable	Standard	Rationale
Imitation	70% to 80% correct responses	A response which is already under imitative control will probably require less training time.
Fatigue	0% to 20% response showing fatigue.	The less fatiguing the response, the more useful the board will be throughout the day. A fatiguing response results in progressively poorer performance as the board's use increases.
Speed	Less than 5 seconds per response.	The quicker the response, more likely a listener is to attend to the message.
Stability	At least 2 seconds	The more stable the movement the more time an observer has to attend to and understand the message.
Consistency	50% or more consistent responses	The movement will be more intelligible if it does not change from response to response.
Range *		The greater the range of the response the more potential exists for an expanded vocabulary and the less likelihood of needing a coded board. (NOTE: Range must be balanced closely with control as both strength and control decrease toward the extremes of the range).
Control	Equal to range	The finer the control of the response (such as pointing), the smaller the symbol cards can be.

*No "ideal" range is offered because this variable is important only relative to the type of movements tested. For example, the complete range of an arm or hand pointing response would be much larger than the complete range of a head or shoulder movement.

Select the symbol system which has the highest overall matching scores. The student will likely be able to use symbols for functional communication much more quickly if he/she can already match them in these Tasks.

Decision IV: Vocabulary Selection

Select a core vocabulary of the most motivating (reinforcing) words which have already been used in communication training. Select those symbols which are motivating and which will actually be used in functional communication. Once a core vocabulary of reinforcing words have been selected, a few "need" words may also be selected for training. These may include such words as toilet or coat. However, these "need" words should be taught only after the student can functionally use the "want" words.

Decision V: Vocabulary Display

The overall vocabulary display on a board is generally controlled by the Board Display itself (see Decision II). For example, row/column boards must be displayed in rows and columns. This decision involves which vocabulary card is placed next to another relative to the constraints of the particular board display. There are no standard rules to follow; common sense offers the best advice. Words with common function (action labels, object labels, numbers, etc.) are frequently grouped together. Direct selection boards are frequently displayed with sentence subjects on the left, action words or verbs in the center, and possible sentence objects on the far right. Another commonly applied standrad is to place high use symbols in the most accessible portion of the board's display to facilitate "speed" in the responding.

Decision VI: Board Construction

In planning the construction of the board, the two primary goals are portability and durability. A portable board can be carried or otherwise kep with the student throughout the day. A durable board can withstand the abuse that often accompanies being transported. Suggestions for making the boards portable follow:

Use the lightest weight materials possible. That is, use posterboard, not cardboard or plywood.

Use the smallest symbol cards that the student's visual, motor, and cognitive skills will allow. This will enable the entire board to be compact.

If the student has a wheelchair, attach the board to the lap tray.

If the student is ambulatory, put shoulder straps on the board so it may be easily carried.

If the board is carried, have it fold in the middle to make it smaller. A laminated file folder works well for this.

Make the most simply constructed board possible for two reasons. The simpler the board, the easier it will be to carry. Probably more importantly, the easier it is to make the board, the easier it will be to quickly replace it with an identical board. Boards carried routinely are often lost or damaged. Quick replacement is extremely important.

NOTE: File the Planning Sheet in a permanent location. This will allow the board to be quickly "remade" if necessary.

REFERENCES

Electronic Boards

Nonvocal Communication Resource Book, edited by Gregg C. Vanderheiden (1978). Available from University Park Press, 233 East Redwood Street, Baltimore, Maryland 21202. This is a reference book listing adresses, price, and availability of communication aids.

"Assessing Non-oral Clients for Assistive Communication Devices" by Colette Coleman, Albert C ook, and Lawrence Meyers. Published in Journal of Speech and Hearing Disorders, XLV, November, 1980, pages 515-526. Article has an appendix "Matching the physical and language capabilities of a disabled client to the corresponding characteristics of a communication device".

Response Identification for the Physically Handicapped Student

Adaptive Equipment for the Severely Multiply Handicapped Child" by Karin Barnes, Nina Murphy, Lois Waldo, and Wayne Sailor in Teaching the Severely Handicapped, Volume IV (editors Robert York and Eugene Edgar). This book is available from Special Press, 724 South Roosevelt Avenue, Columbus, Ohio 43209.

Overview of Boards

Nonvocal Communication Techniques and Aids for the Severely Physically Handicapped, by Gregg C. Vanderheiden and Kate Grilly. Available from University Park Press, 233 East Redwood Street, Baltimore, Maryland 21202. This book is an excellent general introduction to boards and gives many examples of actual boards used by physically handicapped students.

Symbol Systems

Standard Rebus Glossary by C. Clark, C. Davies, and R. Woodcock. Available from American Guidance Service, Inc., Publisher's Building, Circle Pines, Minnesota 55014.

Handbook of Blissymbolics, by B. Kates, S. McNaughton, and H. Silverman. Available from Blissymbolics Communication Institute, 862 Eglinton Avenue East, Toronto, Ontario, Canada M4G 2L1.

PART 4: BLANK FORMS

TOTAL COMMUNICATION CHECKLIST

Student's Name ______________________

Birthdate ______________________

Raters ______________________

____

____

Date ______________________

TOTAL COMMUNICATION CHECKLIST

Name ____________________ Completed by ____________________

Date ____________________

SECTION I: READINESS FOR SYMBOLIC COMMUNICATION

Primary Considerations		YES	MARGINAL	NO	NEED FURTHER INFORMATION
Does the student indicate wants and needs in any way?					
1.01	Has facial expression or laughter to indicate pleasure.				
1.02	Has facial expression to indicate discomfort or anger.				
1.03	Can indicate in some way that they want more of a preferred activity, food, etc.				
1.04	Looks at or gestures to obtain a preferred object, activity, etc.				
1.05	Points to pictures, uses manual signs, or says words to express wants and needs.				
Does the student respond to reinforcement?					
1.11	Refuses some activities or foods.				
1.12	Shows preferences for certain foods.				
1.13	Shows preferences for certain toys, recreation items, or activities.				
1.14	Shows preferences for certain people.				
1.15	Positive reinforcement procedures have been effective recently in a learning situation.				
Does the student exhibit behaviors which would interfere with learning activities?					
1.21	Is frequently ill.				
1.22	Seizures.				
1.23	Tantrums.				
1.24	Displays self-stimulatory behaviors.				
1.25	Displays self-abusive behaviors.				
Does the student exhibit adequate attending skills to warrant structured training?					
1.31	Establishes eye contact with objects and people.				
1.32	Follows moving objects with eyes.				
1.33	Transfers eye gaze from one object to another.				
1.34	Follows simple instructions like "look" or "wait".				
1.35	If not confined to a wheelchair, remains seated in a chair for 2 minutes at a time during a structured activity.				
Does the student exhibit cognitive skills prerequisite to language?					
1.41	Looks for objects not in sight.				
1.42	Uses objects correctly (such as playing with toys, brushes hair, etc.)				
1.43	Retrieves or looks for a dropped object.				
1.44	Matches simple objects.				
1.45	Shows an understanding of turn-taking as evidenced by attempting to imitate motor models.				

SECTION I: (continued)

Secondary Considerations		YES	MARGINAL	NO	NEED FURTHER INFORMATION
Has the student made progress in any type of previous learning activity?					
1.51	Approached criterion performance on several recently trained classroom objectives.				
1.52	Achieved criterion performance in at least one of the most recently trained classroom objectives.				
1.53	Parents or caregivers report acquisition of some skill at home.				
1.54	Educational records indicate progress in some type of training.				
1.55	Currently performs some task of daily living which he/she was unable to do a year ago.				
Does the student respond to or react to the environment in some way?					
1.61	Reacts in some observable way to touch.				
1.62	Reacts in some observable way to light (blinks, turns head, etc.)				
1.63	Reacts in some observable way to noise (startles, looks for sound source, etc.)				
1.64	Reacts in some observable way when talked to.				
1.65	Reacts to new situations and/or novel objects.				
Does the student initiate or start interaction with the environment?					
1.71	Attempts to grasp objects.				
1.72	Moves to be near something or someone.				
1.73	Recognizes individuals or shows preferences for certain ones.				
1.74	Seeks out adult attention.				
1.75	Interacts with peers.				
Is the student offered stimulation to communicate by his/her environment?					
1.81	Is offered a variety of constructive activities each day during free time.				
1.82	Is rarely inactive (lying, waiting, sleeping, sitting alone) during the day.				
1.83	Receives some type of daily training.				
1.84	Goes regularly to school, sports activities, church and restaurants, etc.				
1.85	If physically handicapped, spends most of day in an upright, near sitting position.				
Does the environment encourage the student to communicate?					
1.91	Is talked to by adults or engaged in conversations with adults each day.				
1.92	Is required to show in some way that he/she wants something preferred continued if the activity is interrupted.				
1.93	Is required to make choices before receiving one of two desired objects.				
1.94	Is required to obtain an adult's attention before receiving a want or need.				
1.95	Is required to answer questions routinely.				

SECTION II: PREFERENCE FOR SPEECH

Primary Considerations	YES	MARGINAL	NO	NEED FURTHER INFORMATION
Does the student use speech to obtain wanted or needed items?				
2.01 Says single words or word approximations to express wants or needs.				*
2.02 Says most sounds clearly in words used to express wants and needs.				*
2.03 Uses sentences which are understood even if the sentence topic is unknown.				*
2.04 Talks slowly enough to be understood.				
2.05 Talks loudly enough to be heard and understood.				
Does the student closely imitate spoken models?				
2.11 Imitates vowel sounds (as "ah", "oh", "ee".				*
2.12 Imitates consonant sounds (as "b", "l", "m").				*
2.13 Imitates single syllable words ("cup", "ball).				*
2.14 Imitates two syllable words ("mama", "cookie").				*
2.15 Imitates sounds from own spontaneous vocalization repertoire.				*
Are the student's receptive speech skills equal to his/her expressive speech skills?				
2.21 Follows a variety of simple commands ("sit", "come"),and can also vocalize or say simple words.				*
2.22 Selects objects when asked ("give me cup") and can say the same words spontaneously or in imitation. ("cup").				*
2.23 Responds to name, and can also imitate it when asked, "say Johnny".				*
2.24 Understands different verbs or action words and can also imitate or use simple spoken verbs (example: "go", "sit", etc.).				*
2.25 Understands color or size words and uses some intelligible one-word spoken utterances.				*
Has the student benefitted from direct speech training?				
2.31 Has received speech training in the past.				
2.32 Speech improved during the time he/she was in this past training.				
2.33 Is presently receiving speech training.				
2.34 Speech has improved since being in this current training.				
2.35 Improvement seems to warrant continued efforts to improve speech.				
Does the student have normal hearing?				
2.41 Is thought to have normal hearing.				
2.42 A hearing evaluation has found him to have normal hearing.				
2.43 Rarely has ear aches or ear infections.				
2.44 Has never worn/Is not wearing a hearing aid or auditory trainer.				
2.45 Has never had a hearing aid recommended.				

SECTION II: (continued)

Secondary Considerations		YES	MARGINAL	NO	NEED FURTHER INFORMATION
Does the student have good control of his mouth and breathing?					
2.51	Breathes with mouth closed.				
2.52	Imitates tongue and lip movements.				
2.53	Uses tongue and lip movements in chewing.				
2.54	Swallows normally.				
2.55	Can blow out a candle or match.				
Does the student respond to speech or other sounds?					
2.61	Shows that he/she hears loud novel sounds (horn or whistle).				*
2.62	Shows that he/she hears the radio or music box when it is played softly.				
2.63	Shows that he/she hears loud talking or shouts.				*
2.64	Shows that he/she hears normal talking.				*
2.65	Looks for sound sources.				
Does the student show that he/she understands the speech heard?					
2.71	Responds to name.				
2.72	Selects an object when name of object is said ("give me cup") from cup and ball in front of him/her.				
2.73	Follows simple directives or commands.				
2.74	Responds to directives that include several different verbs or action words (throw, roll, bounce).				
2.75	Understands color and/or size names.				
Is the student's speech free of any perseverative or echolalic behavior?					
2.81	Rarely or never immediately mimics what is said to him/her.				
2.82	Rarely or never mimics certain phrases heard at an earlier time.				
2.83	Rarely or never says certain phrases over and over automatically.				
2.84	Rarely or never responds to any question with the same nonsense answer.				
2.85	Rarely or never uses speech which seems to have no meaning to him/her.				
Is the student still young enough that speech would normally be expected to develop?					
2.91	Under 5 years of age.				
2.92	Between 5 and 10 years of age.				
2.93	Over 10 years of age.				

SECTION III: PREFERENCE FOR SIGNING

Primary Considerations		YES	MARGINAL	NO	NEED FURTHER INFORMATION
Does the student closely imitate simple manual signs?					
3.01	Imitates signs requiring one-handed movements, such as SEE$_2$ signs for drink and candy.				*
3.02	Imitates signs requiring two-handed movements, such as SEE$_2$ signs for table and good.				*
3.03	Imitates signs requiring touching movements, such as SEE$_2$ my and shoe.				*
3.04	Imitates signs requiring nontouching movements, such as SEE$_2$ walk and move.				*
3.05	Imitates signs requiring different hand configurations, such as SEE$_2$ look, toilet, ready, and go.				*
Is the student able to use both hands freely?					
3.11	Shows no physical handicap in either hand.				*
3.12	Has nearly full range of movement of both elbows.				*
3.13	Has nearly full range of movement of both wrists.				*
3.14	Has nearly full range of movement of both shoulders.				*
3.15	Exhibits coordinated movements of both hands and arms.				
Will the student allow someone to manipulate his hands into sign configurations?					
3.21	Allows manipulations of fingers on right hand.				*
3.22	Allows manipulations of fingers on left hand.				*
3.23	Allows manipulations for movements of right wrist, elbow, and shoulder.				*
3.24	Allows manipulations for movements of left wrist, elbow, and shoulder.				*
3.25	Allows simultaneous manipulations for movement of both hands and arms.				*
Does the student spontaneously use gestures to communicate?					
3.31	Waves hello and/or goodbye.				
3.32	Points to objects he/she wants.				*
3.33	Rejects an object or activity by pushing it away.				*
3.34	Uses some type of hand movement to indicate the desire for a drink, or hunger, or to ask to do some activity.				*
3.35	Watches closely the gestures that other people use.				
Would the student's environment readily support and use signing?					
3.41	Parents or caregivers concur that signing may be appropriate for this student.				
3.42	Parents or caregivers are willing to learn and use signs.				
3.43	Classroom staff concur that signing may be appropriate for this student.				
3.44	Classroom staff are willing to learn and use signs.				
3.45	A few of the student's peers also sign.				

SECTION III: (continued)

Secondary Considerations	YES	MARGINAL	NO	NEED FURTHER INFORMATION
Has the student benefitted from signing training currently or in the past?				
3.51 Has received signing training in the past.				
3.52 Signing showed progress during the time he/she received this past training.				
3.53 Is presently receiving signing training.				
3.54 Signing has improved since being in this current training.				
3.55 Improvement seems to warrant continued efforts to improve signing.				
Does the student functionally use his vision?				
3.61 Shows that he/she sees bright lights (blinks, looks at or away from a bright light.				
3.62 Follows movement from across a room without moving his head.				*
3.63 Follows movement close to his eyes without moving his head.				*
3.64 Shows that he sees small objects (bugs, peanuts, pins, etc.)				*
3.65 If eyeglasses have been prescribed, wears them with little supervision.				
Does the student have normal vision?				
3.71 Is thought to have normal vision.				
3.72 Eyes appear to be in good health.				
3.73 A visual evaluation by an optometrist or ophthalmologist has found no visual impairment.				
3.74 Has never had eyeglasses prescribed for him.				
3.75 Has worn/Is wearing eyeglasses.				
Is the student generally motorically active?				
3.81 Performs gross (large) movements with hands and arms in self-help and play activities.				
3.82 Performs fine (small) manipulations of objects during self-help and play activities.				
3.83 Makes manual signs or gestures in play with no meaning.				
3.84 Performs most motor tasks with adequate speed.				
3.85 Uses several gestures or signs communicatively.				
Is the student ambulatory?				
3.91 Rarely or never requires use of hands as support during walking.				
3.92 If uses a walker, can stand without use of hands while pausing.				
3.93 Can independently stand and sign (mover hands and arms) simultaneously.				

SECTION IV: PREFERENCE FOR COMMUNICATION BOARD

	Primary Considerations	YES	MARGINAL	NO	NEED FURTHER INFORMATION
	Is the student unable to imitate most fine motor movements?				
4.01	Rarely or never imitates functional fine motor movements like dialing a phone or turning a book page.				*
4.02	Rarely or never imitates any hand or finger movements.				*
4.03	Is unable to use both hands to imitate fine motor movements.				*
4.04	Is unable to use arm and elbow movements when attempting to imitate fine motor movements.				*
4.05	Is physically able to complete most movements, but does not understand the task of imitation.				*
	Does the student exhibit generally restricted motor skills?				
4.11	Exhibits physical handicap in hands and arms.				*
4.12	Tires quickly during any motor task.				
4.13	Rarely uses, or is unable to use, hand and arm gestures.				*
4.14	Requires adaptive equipment to perform activities of daily living.				
4.15	Uses a positioning wheelchair or other adaptive positioning devices.				
	Is the student motorically and communicatively passive?				
4.21	Has only a few identified reinforcers.				*
4.22	Required long term training to learn prerequisite cognitive skills (see 1.3).				
4.23	Required long term training to learn prerequisite communication skills (see 1.4).				
4.24	Completes most motor tasks slowly and with difficulty.				*
4.25	Unless required to do so, rarely or never engages in a motor activity.				
	Does the student exhibit low cognitive skills prerequisite to language?				
4.31	Only occasionally (or only following a prompt) matches simple objects.				*
4.32	Only occasionally (or only following a prompt) shows an understanding of turn-takings.				*
4.33	Only occasionally (or only following a prompt) uses objects correctly.				*
4.34	Only occasionally (or only following a prompt) looks for objects not in sight.				
4.35	Only occasionally (or only following a prompt) retrieves or looks for a dropped object.				
	Would the student's environment readily support and use a board?				
4.41	Parents or caregivers concur that a board may be appropriate for this student.				
4.42	Parents or caregivers are willing to use the board with student.				
4.43	Classroom staff concur that a board may be appropriate for this student.				
4.44	Classroom staff are willing to use the board with the student.				
4.45	A few of the student's peers also use board.				

SECTION IV: (continued)

Secondary Considerations		YES	MARGINAL	NO	NEED FURTHER INFORMATION
Has the student benefitted from board training currently or in the past?					
4.51	Has received board training in the past.				
4.52	Board training showed progress during the time training was received.				
4.53	Is presently receiving board training.				
4.54	Board use has improved since being in this current training.				
4.55	Improvement seems to warrant continued efforts to improve board use.				
Can the student match objects to pictures of objects?					
4.61	When shown an object, can select an identical one from an array of various objects.				
4.62	When shown an object, can recognize a picture of that same object.				
4.63	When shown a picture, can recognize an identical picture.				
4.64	When shown an object, is able to recognize the printed word for that object.				
4.65	Points to picture to obtain that object represented in the picture (in a book, magazine, on a board, etc.).				
Can the student control at least one motor or visual response?					
4.71	Eye gaze is under directional control.				
4.72	Exhibits controlled head movements in one or more direction.				
4.73	Exhibits controlled lip, jaw, or tongue movements.				
4.74	Exhibits controlled movements in one of the upper or lower extremities (arms, legs, feet, etc.)				
4.75	Exhibits controlled trunk movement in one or more directions.				
Does the student have normal vision?					
4.81	Is thought to have normal vision.				
4.82	Eyes appear to be in good health.				
4.83	A visual evaluation by an optometrist or ophthalmologist has found no visual impairment.				
4.84	Has never had eyeglasses prescribed for him.				
4.85	Has worn/Is wearing eyeglasses.				
Does the student functionally use his vision?					
4.91	Shows that he/she sees bright lights (blinks, looks at or away from a bright light).				
4.92	Follows movement from across a room without moving his head.				
4.93	Follows movement close to his eyes without moving his head.				
4.94	Shows that he sees small objects (bugs, peanuts, pins, etc.).				
4.95	If eyeglasses have been prescribed, wears them with little supervision.				

TOTAL COMMUNICATION PROFILE

Student's Name________________________ Birthdate__________ Age_____

Checklist Rater__________________ Relationship to Student__________

Assessment Examiner______________ Relationship to Student__________

Date Assessment Began____________ Date Assessment Ended____________

Directions: Tally the number of "YES", "MARGINAL", and "NO" entries for each of the 10 questions in the four sections of the Checklist and score on the Profile as indicated below. Refer to the TCCA Instruction Manual for further directions in completing the Profile.

YES			MARGINAL						NO		
Yes	Marginal	No	Yes	Marginal	No	Yes	Marginal	No	Yes	Marginal	No
5	0	0	0	5	0	1	2	2	0	0	5
4	1	0	0	4	1	2	1	2	0	1	4
4	0	1	1	4	0	1	1	3	1	0	4
3	2	0	0	3	2	2	0	3	0	2	3
3	1	1	2	3	0	3	0	2	1	1	3
2	2	1	1	3	1						

Record the following information at the completion of the TCCA.

	TCCA Decisions for this student are:
SECTION I: READINESS	
SECTION II: SPEECH	
SECTION III: SIGNING	
SECTION IV: BOARD	

TOTAL COMMUNICATION PROFILE

SECTION I: READINESS FOR SYMBOLIC TRAINING

Primary Considerations

	YES	MARGINAL	NO
1.0 Does the student indicate wants and needs in any way?			
1.1 Does the student respond to reinforcers?			
1.2 Does the student exhibit behaviors which would interfere with learning activities?			
1.3 Does the student exhibit adequate attending skills to warrant structured training?			
1.4 Does the student exhibit cognitive skills prerequisite to language?			

Secondary Considerations

	YES	MARGINAL	NO
1.5 Has the student made progress in any type of previous learning activity?			
1.6 Does the student respond to or react to the environment in some way?			
1.7 Does the student initiate or start interaction with the environment?			
1.8 Is the student offered stimulation to communicate by the environment?			
1.9 Does the environment encourage the student to communicate?			

SECTION II: PREFERENCE FOR SPEECH

Primary Considerations

	YES	MARGINAL	NO
2.0 Does the student use speech to obtain wanted or needed items?			
2.1 Does the student closely imitate spoken models?			
2.2 Are the student's receptive skills equal to his/her expressive skills?			
2.3 Has the student benefited from direct speech training?			
2.4 Does the student have normal hearing?			

Secondary considerations

	YES	MARGINAL	NO
2.5 Does the student have good control of his/her mouth and breathing?			
2.6 Does the student respond to speech or other sounds?			
2.7 Does the student show that he/she understands the speech heard?			
2.8 Is the student's speech free of any perseverative or echolalic speech?			
2.9 Is the student still young enough that speech would normally be expected to develop?			

Total Communication Profile
(continued)

SECTION III: PREFERENCE FOR SIGNING

Primary Considerations

	YES	MARGINAL	NO
3.0 Does the student closely imitate simple manual signs?			
3.1 Is the student able to use both hands freely?			
3.2 Will the student allow someone to manipulate his/her hands into sign configurations?			
3.3 Does the student spontaneously use gestures to communicate?			
3.4 Would the student's environment readily support and use signing?			

Secondary Considerations

	YES	MARGINAL	NO
3.5 Has the student benefitted from signing training currently or in the past?			
3.6 Is the student generally motorically active?			
3.7 Is the student ambulatory?			
3.8 Does the student have normal vision?			
3.9 Does the student functionally use his vision?			

SECTION IV: PREFERENCE FOR BOARD

Primary Considerations

	YES	MARGINAL	NO
4.0 Is the student unable to imitate most fine motor movements?			
4.1 Does the student exhibit generally restricted motor skills?			
4.2 Is the student motorically and communicatively passive?			
4.3 Does the student exhibit low cognitive skills prerequisite to language?			
4.4 Would the student's environment readily support and use a board?			

Secondary Considerations

	YES	MARGINAL	NO
4.5 Has the student benefitted from board training currently or in the past?			
4.6 Can the student match objects to pictures of objects?			
4.7 Can the student control at least one motor or visual response?			
4.8 Does the student have normal vision?			
4.9 Does the student functionally use his/her vision?			

T C C A

Communication Board Planning Sheet

Student________________________________Date________________________________

DECISION I: Response

SELECTION RESPONSE SUMMARY TABLE

Response Tested	Imitation	Fatigue	Speed	Stability	Consistency	Range	Control

Based on the summary information above, this student will use the following response:

____

DECISION II: Board Display

BOARD DISPLAYS	PREREQUISITE SKILLS	ASSESSMENT TASK SCORES
DIRECT SELECTION	POINTS/EYE GAZE	
	SEQUENCING (Optional)	
SCANNING	YES/NO	
	VISUAL TRACKING	
ROW/COLUMN	COLOR MATCHING	
	NUMBER MATCHING	
	SEQUENCING	
	YES/NO (Optional)	
SUCCESSIVE QUARTERING	MATCHING QUADRANTS	
	SEQUENCING	
	YES/NO (Optional)	

Based on the summary information above, the student will use the following board display:

DECISION III: Symbol System

	ASSESSMENT TASK SUMMARY SCORES		
SYMBOL SYSTEM	OBJECT TO SYMBOL	SYMBOL TO SYMBOL	SPOKEN TO SYMBOL

Based on the above summary information, the student will use the following symbol system(s).

____

DECISION IV: Vocabulary Selection

Answer the following questions:

What reinforcers are most motivating during training? ______________

____

That is, what is most important to the student to communicate? ________

____

What is most important to the parents for the student to communicate? __

____

What is most important at school for the student to communicate? ______

____

Select from the above a core vocabulary of the most motivating and/or needed vocabulary with which to begin training. Select only as many as you feel your student can learn in the next year. The highest priority items are those which the student can use to communicate his immediate wants and needs.

______________ ______________ ______________

______________ ______________ ______________

______________ ______________ ______________

______________ ______________ ______________

______________ ______________ ______________

DECISION V: Vocabulary Display

In the sample board below, draw in how you would like the student's board display to be after one year's training (use additional pages if necessary). Write in the word for each symbol. Note the dimensions of the board. If a response panel is used, draw a sample panel beside the board display sample.

____ Inches

______ Inches

If a flip-up display is used, draw sample displays in additional space.

Based on "card size" assessment task scores (i.e., 7 or 8 correct responses) the size of the vocabulary cards on this board will be:

________ inch by ________ inch.

DECISION VI: Board Construction

List the materials needed to make the board:

1. ______________________
2. ______________________
3. ______________________
4. ______________________
5. ______________________
6. ______________________
7. ______________________
8. ______________________

FILE THIS FORM IN A CENTRAL LOCATION. IF THE BOARD IS LOST OR DAMAGED, USE THIS TO HELP RECONSTRUCT AN IDENTICAL BOARD.